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In the Supreme Court of the United States

OCTOBER TERM, 1931

No. 13, Original

THE UNITED STATES OF AMERICA, PLAINTIFF

v.

THE STATE OF OREGON, DEFENDANT

BRIEF FOR THE UNITED STATES

JURISDICTION

As this suit is brought by the United States against the State of Oregon, the law is settled that the suit is within the original jurisdiction of this Court.

STATEMENT

By leave of Court the United States filed its bill of complaint in this Court on December 1, 1930, and the State of Oregon filed an answer on February 24, 1931, which was superseded by an amended answer and counterclaim filed on October 5, 1931.

This is a suit to quiet the title of the United States as against the State of Oregon to "a large tract of lake-bed land known as Malheur and

Harney Lakes, including a small strip of land constituting a connecting channel between said lakes, and known as Mud Lake and the Narrows" (Complaint 5); which embraces 81,786 acres of unsurveyed lands in Harney County, in southeastern Oregon. All of the land claimed by the United States was set apart as a bird reserve, known as Lake Malheur Reservation, by an Executive Order No. 929, dated August 18, 1908, as shown by the plat opposite page 1 of the Special Master's Report, and has been administered as such by the United States Bureau of Biological Survey, Department of Agriculture, since that date.

PLEADINGS

Briefly, the United States alleged in its bill of complaint that long prior to 1859, when Oregon was admitted to the Union, the United States was seized in fee of the described lake-bed lands and that the uplands adjacent to and surrounding the said lake-bed lands were part of the public domain of the United States (pp. 5–6); that the lake-bed land is unsurveyed and the shores of the lakes have always been undefined and untraceable upon the ground (p. 6); that although in 1877 and 1895 surveys were made of parts of the territory in question, and in connection with such surveys incomplete meander lines were run, such meander lines do not correctly represent the boundaries of any of the lake-beds referred to (pp. 6–7); that Harney and Malheur Lakes are and always have been shal-

low lakes, the waters being extremely variable in area and depth, that Harney Lake has for many years been substantially dry, and that the recession of water in Malheur Lake during most of each year is nearly complete (p. 10); that the lakes are not and never have been navigable in fact or within the meaning of the laws of the United States and that they have never been used, nor are they susceptible of being used, in their natural condition as permanent highways for useful commerce (p. 11); and that the State of Oregon claims title to the lake-bed lands and publicly asserts ownership (pp. 11–12). The bill prayed that the claims of the State of Oregon be declared null and void; that the title of the United States be quieted as against any and all claims of the State of Oregon; that the State of Oregon be permanently enjoined from asserting any title or interest in the said lands adverse to the United States and from interfering with their possession by the United States; and for further relief (p. 13).

The defendant, in its amended answer, denied the principal allegations of the complaint; and, in particular, the allegation that the lakes are not and never have been navigable (p. 17). It affirmatively alleged that the lakes always have been and are now susceptible of being used as highways of commerce and that prior to the Executive Order of August 18, 1908, purporting to establish a bird reserve, they were in fact used for sailing, rowing,

fishing, fowling, trapping, bathing, skating and the transportation of fish, game and fur-bearing animals (pp. 24–25); and that the agents of the Secretary of Agriculture have patrolled them in gasoline launches (pp. 25–26). It further alleged that the meander lines referred to in the complaint were correct (pp. 28–29); that the United States has granted and conveyed to the State of Oregon and to private individuals substantially all of the land bordering on the lakes and adjoining the meander lines without reserving title to any part of the lake beds and has thereby abandoned all claim to the beds of the lakes (pp. 29–30); that the title to the lake beds up to ordinary highwater mark and below the meander lines vested in the State of Oregon upon its admission to the Union (pp. 17–18) having been previously held by the United States in trust for the future State (p. 5), and that certain Acts passed by the Oregon Legislature in 1917, 1921, 1923 and 1931 sustain its claim of title[1] (pp. 32–41).

The defendant also filed a counterclaim, in which it alleges that a certain sand-reef separating Harney Lake from Mud Lake was cut through some time after the admission of Oregon to the Union, with the result that large quantities of water flowed into Harney Lake and great portions of the beds of Malheur and Mud Lakes, and low lands below the

[1] The substance of these acts is set forth on pages 56 and 57 of the Special Master's Report, and the acts in full appear on pages vi to xiv of the Supplement to his Report, as well as on pages 32 to 41 of the amended answer.

meander lines became permanently uncovered (pp. 46–47); that prior to the cutting through of the sand reef the lakes reached a depth as great as seventeen feet during ordinary seasons of high water (p. 45); and that if it were not for the diversion of water for irrigation purposes the lakes would stand at approximately the level at which they stood when Oregon was admitted to the Union (p. 44). After again reciting the granting and conveying of certain uplands by the United States to the State of Oregon and to private individuals without reservation of title to the lake beds, the counterclaim asserts that thereby the United States abandoned all claims to lands below the meander lines and consented that title to such land should be determined according to the law of the State of Oregon (pp. 49–51); and that Oregon is now the owner of all such lands within the meander lines (p. 51). The defendant then prays for a decree quieting its title as against the United States (p. 57) and enjoining the United States from asserting title or disturbing the possession, use and enjoyment of the lake-bed land by the State (p. 58); and also asks that the Executive Order be declared null and void and be cancelled as a cloud on the title of the defendant (p. 58).

By stipulation the filing of a reply was waived, and it was agreed that the allegations of new matter should be taken as denied.

By order entered on April 13, 1931, Garrett W. McEnerney of San Francisco was appointed

Special Master, with the power of a Master in Chancery to take the evidence and report his findings of fact, conclusions of law and recommendations for a decree to this Court. The Master filed his report on October 15, 1934.

The evidence was reduced to narrative form by the parties and arranged according to subjects of proof (see Index, Vol. I, p. 63 *et seq.*) and by stipulation was filed as the Joint Abstract of Record, constituting 2 volumes. (S. M. R. 13.)

The Special Master, states that "the case turns upon whether (a) the area involved passed to the State of Oregon upon its admission into the Union as land underlying navigable waters and (b) if not, whether the United States has lost title through disposition of the uplands bordering thereon." (S. M. R. 2.)

REPORT OF THE SPECIAL MASTER

The Special Master found that there were six questions of fact involved as follows (S. M. R. 14):

(1) Was the area involved, i. e., the land and overlying water within the Meander Line Boundary, property of the United States upon the admission of Oregon into the Union, February 14, 1859?

(2) Did the area involved constitute navigable waters (in fact) on February 14, 1859?

(3) Were there stable lands constituting islands and/or promontories within the area involved on February 14, 1859?

(4) Was the meander line (81.098 miles) laid down by J. H. Neal in 1895–1896, and approved in 1897, a correct line?

(5) Were there relicted lands within the Meander Line Boundary at the commencement of the suit?

(6) Are the grants made by the United States to lands bordering upon the Meander Line Boundary comparable in form to those involved in *Hardin* v. *Jordan,* 140 U. S. 371?

He answered question (1) Yes, question (2) No; question (3) Yes, question (4) Yes, question (5) No answer, question (6) Yes.

The State of Oregon excepted to Findings I, II, and III.

The United States excepted to Findings IV and VI because not necessary to the decision of the case and as to Finding IV also, because it was not sustained by the evidence. These exceptions are considered in the brief of the United States in support of its exceptions to the Master's Report.

The exceptions which the United States filed were intended to confine the scope of this case to the issues between the United States and the State of Oregon and to eliminate the consideration of questions affecting the rights of the "upland patentee proprietors" and the "settlers" within the Malheur Lake Division, who are not parties to this suit. (S. M. R. 11.)

"In the 81,786 acres of unsurveyed lands above mentioned are three lakes (a) Malheur Lake (47,-

670.40 acres); (b) Mud Lake (1,466 acres); and (c) Harney Lake (29,562 acres). (S. M. R. 3.)

"Malheur and Mud Lakes are connected by the Narrows which may be described as a waterway having somewhat the configuration of a stream. The length of the Narrows is 2.12 miles and its average width 17.4 chains. * * * The area of the Narrows is 295.60 acres. Mud and Harney Lakes are connected by an area of sand, a reef whereon furnishes its name (the Sand Reef). * * * The area of and about the Sand Reef is 2792 acres. The waters within the above 81,786 acres are wholly inland, have no outlet and are intrastate." (S. M. R. 4.)

* * * "the shore or meander line involved (105.36 miles in length) is called the Meander Line Boundary, and the area within the Boundary has been divided into five Divisions: (1) Malheur Lake; (2) Narrows; (3) Mud Lake; (4) Sand Reef; and (5) Harney Lake.

"The uplands (surveyed lands), taking only the smallest legal subdivisions which touch the Meander Line Boundary, total 9725.96 acres." (S. M. R. pp. 3, 4, 5.)

The Special Master made separate findings as to the interest owned by the parties in each of the five divisions (*infra*, pp. 9 to 15). He found and held that Oregon has no interest whatever in the Malheur Lake Division, nor in the Harney Lake Division, nor in the Sand Reef Division. That the

United States has no interest whatever in the bed or lands of the Narrows Division; that Oregon owns the bed of Subdivision B of the Narrows to the center line thereof opposite its ownership of uplands, and that Oregon owns no uplands on Subdivision A. As to Mud Lake, he found that the United States had disposed of all lands bordering on the Mud Lake Division, and that Oregon owns 72.31 chains of a total frontage of 806.94 chains of Mud Lake.

The only lands in the area in question, about which there is any dispute as to the title, are two lots of school lands, one of 140.60 acres and the other of 20.27 acres in the Harney Lake Division, and 62.76 acres of school lands in the Sand Reef Division.

The Special Master held that no title passed to Oregon as to these three parcels, because the surveys were not approved until after the Executive Order of August 18, 1908, establishing Lake Malheur Reservation.

MALHEUR LAKE DIVISION

The Special Master found (S. M. R. 67):

> 1. Prior to the commencement of this suit the United States had disposed of upland bordering on the Malheur Lake Division, the frontage whereof on the meander line amounted to 79.80% of the entire frontage for that division, and had retained and owned at the commencement of this suit

lands bordering on the same line the frontage whereof represented 20.20% of the frontage. Of the 79.80% of the frontage thus disposed of by the United States 1.34% was of school land granted to and sold by Oregon before commencement of suit; 4.80% of indemnity lands listed to and sold by Oregon before the commencement of suit and 73.66% of patented land.

2. Taking as premises (a) that Malheur Lake does not give rise to an exception to the rule in *Hardin* v. *Jordan,* and (b) that the common law as understood by this Court is the common law of Oregon, it is not necessary and it would be inappropriate in the absence of the only persons interested therein (the successors in interest of the State of Oregon of school and indemnity land) adversely to the United States to determine whether in a rateable partition of the bed of the lake among upland proprietors the above percentage of 1.34% and 4.80% should be taken by the owners of the upland school and indemnity lands or by the United States.

3. In any event the United States is the owner of 20.20% (or some equitable approach thereto) of the bed of Lake Malheur held in common with owners of upland.

4. Oregon has no claim whatever in the Malheur Lake Division and the United States is entitled to a decree to the foregoing effect and quieting its title and the title of its grantees against the State of Oregon to all interest in the Malheur Lake Division.

HARNEY LAKE DIVISION

The Special Master found (p. 71) that prior to the commencement of this suit the United States had disposed of a patent of 46.11 acres to John C. Clement, and 172.63 acres of school land owned by Oregon. "This acreage [of 172.63] is a part of the same section in respect whereof Oregon took the above 67.37 acres as base for lieu lands." (S. M. R. 55.)

The Master held these school lands are not entitled to a ratable participation in the bed of Harney Lake, for two reasons:

> (a) that school lands do not take the benefit of the rule in *Hardin* v. *Jordan,* and (b) that in any event as shown by Appendix 18 (Report of Special Master: Vol. 2, p. 96) Oregon took deficiency within the meander line in respect of a Section 36 whereof the above 172.63 acres was a part, for use as lieu land elsewhere and cannot claim the benefit of the rule of *Hardin* v. *Jordan.* (S. M. R. 71.)

Referring again to this matter in his report (S. M. R. 55), the Special Master said:

> *Appendix 18 (Report of Special Master, Vol. 2, page 96) contains a diagram of this section, showing the fractional nature thereof, and also indicating the 67.37 acres within the meander line which Oregon used as base for lieu lands* (see inset facing p. 70, infra).

> Oregon thereby gave a construction to the Act of Admission and of her rights thereunder (the right to use base in the meandered area for lieu lands to be elsewhere selected) and cannot now claim that the fraction of the same section bordering on the meander line gave rise to rights under *Hardin* v. *Jordan*. * * *

And he held that the United States is the owner of all the interests in the bed of Harney Lake except the interests of the patentee, John C. Clement. (S. M. R. 72.)

Oregon claimed two lots of school lands, one of 140.60 and the other of 20.27 acres, but they were upon surveys, approved after the Executive Order of August 18, 1908, and Oregon has not title thereto. (S. M. R. 71.)

SAND REEF DIVISION

The Special Master found that at the time of the commencement of this suit the United States owned all lands bordering on the Sand Reef Division except one lot containing 41.84 acres patented to Aaron Farnsworth, and another containing 37.30 acres patented to Armenious C. Lynch. These two lots represent a frontage of 4.90%. (S. M. R. 70, 90.) Oregon claimed 62.76 acres as school land, but the Special Master found that this was claimed under a survey *approved after* the Executive Order of August 18, 1908. If the Executive Order was valid as of that date, Oregon conceded that it did

not have title to the 62.76 acres. The Special Master held the Executive Order was valid. (S. M. R. 70–71, 100; see Appendix 7, p. 100.)

THE NARROWS DIVISION

The Special Master found (Finding XXVII, S. M. R. 126):

> The Narrows by which Malheur and Mud Lakes are connected may be described as a waterway having somewhat the configuration of a stream. * * * The area of the Narrows is 295.60 acres.

The Special Master divides the Narrows Division into subdivision A, lying between the Bridge and Malheur Lake, and subdivision B, lying between the Bridge and Mud Lake. He found that the United States, prior to the commencement of this suit, had disposed of all the upland fronting on both subdivisions. The Special Master treated the Narrows as a stream and held that under Section 2476 of the Revised Statutes, which provides that—

> * * * in all cases where the opposite banks of any streams not navigable belong to different persons, the stream and the bed thereof shall become common to both,

the United States has no interest whatever in the bed or lands of the Narrows Division except that it has or may have an easement whereby the waters of Malheur Lake may pass. (S. M. R. 68, 69.)

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Subdivision A

The upland proprietors in subdivision A of the Narrows own the bed and lands of that subdivision. (S. M. R. 68). Oregon owns no upland on subdivision A of the Narrows Division. (S. M. R. 135.) See also Appendix 5, p. 100 of Special Master's Report.

Subdivision B

Oregon is the owner in fee simple absolute of the bed of subdivision B of the Narrows to the center line thereof opposite her ownership of upland on the banks; her ownership constitutes 86.85% of the total frontage of 183.85 chains. (S. M. R. 135.)

MUD LAKE DIVISION

The Special Master found that before the commencement of this suit the United States had disposed of all the lands bordering on the Mud Lake Division, and that the frontage of the patented lands is 67.60% and that of the indemnity lands 32.40%. (S. M. R. 69, 70.) That the total frontage is 806.94 chains; that 72.31 chains represent patented lands owned by Oregon; and that individuals owned 473.16 chains of patented lands, while 261.47 chains represent indemnity lands owned by individuals.

The Special Master found that Oregon is entitled to a ratable portion of the bed of Mud Lake as 72.31 chains bears to 806.94 (S. M. R. 70), and

he held that the United States should be enjoined from asserting any interest or title adverse to the interest or title of Oregon. (S. M. R. 136 (12).) He found it unnecessary to decide, in the absence of the owners of the indemnity lands bordering on Mud Lake, whether they are entitled to participate in the partition of Mud Lake. (S. M. R. 70, 136 (12).) See also Appendix 6, p. 100, of the Special Master's Report.

ARGUMENT

I

THE AREA INVOLVED WAS THE PROPERTY OF THE UNITED STATES UPON THE ADMISSION OF OREGON INTO THE UNION FEBRUARY 14, 1859

The Special Master found as follows:

> A vast area of public domain situated in what is now southeastern Oregon was owned by the United States at and immediately preceding the admission of Oregon into the Union, including the lands here involved. (S. M. R. 77.)
>
> Prior to February 14, 1859, no portion of any of the five Divisions or the waters or shores thereof was reserved, disposed of or granted away, or attempted to be reserved, disposed of or granted away by the United States by statute, treaty, patent, or otherwise; and no portion of any of the five Divisions has been disposed of by the United States since February 14, 1859, in terms, nor at all, unless as a legal result of the patenting

or other disposition of the uplands by the United States. (S. M. R. 79.)

The United States became the undisputed sovereign owner of the territory along the Pacific Ocean between the forty-second and forty-ninth parallels (including the present States of Oregon and Washington) by the settlement of the Northwest boundary dispute with Great Britain in 1846.

On August 14, 1848, the Oregon Territory was formed, extending from the northern boundary line of California to the forty-ninth parallel (now the northern boundary line of the State of Washington and of the United States), and from the Rocky Mountains to the Pacific. (9 Stat. 323.) (S. M. R. 73.)

See *Shively* v. *Bowlby*, 152 U. S. 1, 50, 57.

Oregon's exception to this finding is based solely upon its contention that "the areas involved underlay navigable waters when the State was admitted into the Union and the United States merely held the title *in trust* for the future State." (Defendant's brief 15.)

The United States concedes that if the lakes were navigable when Oregon was admitted into the Union, the title to the beds thereof passed to Oregon. If, however, they were not then navigable, the title to the beds remained in the United States.

The question of the navigability of the lakes involved is really determinative of this controversy.

II

The Area Involved did not Constitute Navigable Waters (in Fact) on February 14, 1859?

The Special Master found (Finding XXI, S. M. R. p. 118):

> No one of the Divisions lying within the Meander Line Boundary was on February 14, 1859, and no one of them has since been navigable in fact, and neither trade nor travel did then or at any time since has or could or can move over said Divisions, or any of them, in their natural or ordinary conditions according to the customary modes of trade or travel over water; nor was any of them on February 14, 1859, nor has any of them since been used or susceptible of being used in the natural or ordinary condition of any of them as permanent or other highways or channels for useful or other commerce. The region thereabouts did not, nor did any of the Divisions on February 14, 1859, nor has it nor have they since produced commodities which would or could be transported by water, nor has it been nor have they been capable of producing commodities which would or could be transported by water, nor was said region nor any of said Divisions capable of sustaining a population to be served by water transportation.

The evidence sustaining this finding is overwhelming, and will be fully discussed later, but first we will discuss the law bearing on the question of navigability.

(A) Upon the Admission of a State to the Union, the Title to Beds of Rivers and Other Waters Not Then Navigable Remains in the United States

In *United States* v. *Utah*, 283 U. S. 64, which was a suit brought by the United States to quiet its title to certain portions of the beds of certain rivers in the State of Utah, the Court said (p. 75):

> In accordance with the constitutional principle of the equality of States, the title to the beds of rivers within Utah passed to that State when it was admitted to the Union, if the rivers were then navigable; and, if they were not then navigable, the title to the river beds remained in the United States.

In *Oklahoma* v. *Texas*, 258 U. S. 572, 591, this Court said:

> We conclude that no part of the river within Oklahoma is navigable and therefore that the title to the bed did not pass to the State on its admission into the Union. If the State has a lawful claim to any part of the bed, it is only such as may be incidental to its ownership of riparian lands on the northerly bank. And so of the grantees and licensees of the State.

In that case, it was also said (page 594):

> Where the United States owns the bed of a non-navigable stream and the upland on

> one or both sides, it, of course, is free when disposing of the upland to retain all or any part of the river bed; and whether in any particular instance it has done so is essentially a question of what it intended. If by a treaty or statute or the terms of its patent it has shown that it intended to restrict the conveyance to the upland or to that and a part only of the river bed, that intention will be controlling; and, if its intention be not otherwise shown, it will be taken to have assented that its conveyance should be construed and given effect in this particular according to the law of the State in which the land lies.

This statement was quoted with approval by Chief Justice Taft in *Brewer Oil Co.* v. *United States,* 260 U. S. 77, at p. 88.

(B) The Question of Navigability of the Lakes Involved Is a Federal Question and Must Be Determined According to Federal Law

Whether the lakes in question are navigable is a federal question and must be determined by the federal rule as announced by this Court, and this is true, although the lakes under consideration are not navigable waters of the United States, that is, they are not navigable in interstate or foreign commerce, and the question is whether they are navigable waters of the State of Oregon. The Federal rule of navigability in fact is the same whether applied to waters within, along or through the States.

United States v. *Holt State Bank*, 270 U. S. 49, 55, was a suit in equity by the United States to quiet in it the title to the bed of Mud Lake, Minnesota, the United States insisting that the lake was non-navigable when Minnesota was admitted into the Union, and the defendants insisting the lake was at that time navigable, that the State on being admitted to the Union became the owner of the bed, and that the defendants had succeeded to the right of the State.

The Court said:

> Both courts below found that the lake was navigable. But they treated the question of navigability as one of local law to be determined by applying the rule adopted in Minnesota. We think they applied a wrong standard. Navigability, when asserted as the basis of a right arising under the Constitution of the United States, is necessarily a question of federal law to be determined according to the general rule recognized and applied in the federal courts. *Brewer-Elliott Oil & Gas Co.* v. *United States*, 260 U. S. 77, 87. To treat the question as turning on the varying local rules would give the Constitution a diversified operation where uniformity was intended. * * *

In *United States* v. *Utah, supra,* this Court said (p. 75):

> The question of navigability is thus determinative of the controversy, and that is a federal question. This is so, although it is

undisputed that none of the portions of the rivers under consideration constitute navigable waters of the United States, that is, they are not navigable in interstate or foreign commerce, and the question is whether they are navigable waters of the State of Utah. State laws cannot affect titles vested in the United States.

In *Brewer Oil Co.* v. *United States,* 260 U. S. 77, 87, Chief Justice Taft said:

> But it is said that the navigability of the Arkansas River is a local question to be settled by the legislature and the courts of Oklahoma, and that the Supreme Court of the State has held that at the very point here in dispute, the river is navigable. *State* v. *Nolegs,* 40 Okla. 479. A similar argument was made for the same purpose in *Oklahoma* v. *Texas, supra,* based on a decision by the Supreme Court of Oklahoma as to the Red River. *Hale* v. *Record,* 44 Okla. 803. The controlling effect of the state court decision was there denied because the United States had not been there, as it was not here, a party to the case in the state court. *Economy Light & Power Co.* v. *United States,* 256 U. S. 113, 123. In such a case as this the navigability of the stream is not a local question for the state tribunals to settle. The question here is what title, if any, the Osages took in the river bed in 1872 when this grant was made, and that was thirty-five years before Oklahoma was taken into the Union and before there were any local tribunals to

> decide any such questions. As to such a grant, the judgment of the state court does not bind us, for the validity and effect of an act done by the United States is necessarily a federal question. * * * It is not for a State by courts or legislature, in dealing with the general subject of beds of streams, to adopt a retroactive rule for determining navigability which would destroy a title already accrued under federal law and grant or would enlarge what actually passed to the State at the time of her admission, under the constitutional rule of equality here invoked.

(C) LAKES ARE NAVIGABLE WHEN THEY ARE USED OR SUSCEPTIBLE OF BEING USED IN THEIR ORDINARY CONDITION AS HIGHWAYS OF COMMERCE OVER WHICH TRADE AND TRAVEL ARE OR MAY BE CONDUCTED IN THE CUSTOMARY MODES OF TRADE AND TRAVEL ON WATER

In *United States* v. *Holt State Bank, supra,* involving the navigability of Mud Lake in Minnesota, this Court said (p. 56):

> The rule long since approved by this Court in applying the Constitution and laws of the United States is that streams or lakes which are navigable in fact must be regarded as navigable in law; that they are navigable in fact when they are used, or are susceptible of being used, in their natural and ordinary condition, as highways for commerce, over which trade and travel are or may be con-

> ducted in the customary modes of trade and travel on water; and further that navigability does not depend on the particular mode in which such use is or may be had—whether by steamboats, sailing vessels or flatboats—nor on an absence of occasional difficulties in navigation, but on the fact, if it be a fact, that the stream in its natural and ordinary condition affords a channel for useful commerce.

In *United States* v. *Utah, supra,* the Court said (p. 76):

> The test of navigability has frequently been stated by this Court. In *The Daniel Ball,* 10 Wall. 557, 563, the Court said: "Those rivers must be regarded as public navigable rivers in law which are navigable in fact. And they are navigable in fact when they are used, or are susceptible of being used, in their ordinary condition, as highways for commerce, over which trade and travel are or may be conducted in the customary modes of trade and travel on water." In *The Montello,* 20 Wall. 430, 441, 442, it was pointed out that "the true test of navigability of a stream does not depend on the mode by which commerce is, or may be, conducted, nor the difficulties attending navigation," and that "it would be a narrow rule to hold that in this country, unless a river was capable of being navigated by steam or sail vessels, it could not be treated as a public highway." The principles thus laid down have recently been restated in

United States v. *Holt State Bank*, 270 U. S. 49, 56. * * *

Brewer Oil Co. v. *United States, supra,* was a suit in equity filed by the United States for itself and as trustee for the Osage Tribe of Indians to cancel oil and gas leases granted the oil company by the State of Oklahoma, of portions of the bed of the Arkansas River opposite the Osage Reservation in that State. The State of Oklahoma intervened and denied that the Osage Tribe, or the United States as its trustee, owned the river bed.

The District Court found that at the place in question the Arkansas River was and always had been a non-navigable stream and that by express grant of the Government made before Oklahoma came into the Union the Osage Tribe of Indians took title in the river bed to the main channel and still had it and it entered a decree as prayed. The Circuit Court of Appeals affirmed the decree of the District Court.

This Court, in considering the finding that the Arkansas River was not navigable at the place where the river bed lots in controversy were, said (p. 86):

> A navigable river in this country is one which is used, or is susceptible of being used in its ordinary condition, as a highway for commerce over which trade and travel are or may be conducted in the customary modes of trade and travel on water. It does not depend upon the mode by which commerce is

> conducted upon it, whether by steamers, sailing vessels or flat boats, nor upon the difficulties attending navigation, but upon the fact whether the river in its natural state is such that it affords a channel for useful commerce.

Oklahoma v. *Texas, supra,* was a suit brought in the Supreme Court of Oklahoma against Texas to settle a controversy between them over their common boundary along the course of Red River. The United States intervened and set up a claim to the river bed against both States.

This Court held the river was non-navigable, saying (p. 591):

> While the evidence relating to the part of the river in the eastern half of the State is not so conclusive against navigability as that relating to the western section, we think it establishes that trade and travel neither do nor can move over that part of the river, in its natural and ordinary condition, according to the modes of trade and travel customary on water;—in other words, that it is neither used, nor susceptible of being used, in its natural and ordinary condition as a highway for commerce. Its characteristics are such that its use for transportation has been and must be exceptional, and confined to the irregular and short periods of temporary high water. A greater capacity for practical and beneficial use in commerce is essential to establish navigability.

The following cases were cited: *United States* v. *Rio Grande Co.*, 174 U. S. 690; *Leovy* v. *United States*, 177 U. S. 621; *Toledo Liberal Shooting Co.* v. *Erie Shooting Club*, 90 Fed. 680; *Harrison* v. *Fite*, 148 Fed. 781; *North American Dredging Co.* v. *Mintzer*, 245 Fed. 297.

Economy Light and Power Co. v. *United States*, 256 U. S. 113, was a suit brought by the United States against the Light Company to restrain it from constructing a dam in the Desplaines River in Illinois without the consent of Congress or authority of the State and without approval of the location and plans by the Chief of Engineers and the Secretary of War.

Relief was prayed upon the ground, among others, that the river was a navigable highway. The District Court granted an injunction which was affirmed by the Circuit Court of Appeals.

This Court said (pp. 121, 123):

> The Circuit Court of Appeals, in passing upon the question of navigability, correctly applied the test laid down by this Court in *The Daniel Ball*, 10 Wall. 557, 563; and *The Montello*, 20 Wall. 430, 440–443; that is, the test whether the river, in its natural state, is used, or capable of being used as a highway for commerce, over which trade and travel is or may be conducted in the customary modes of trade and travel on water. Navigability, in the sense of the law, is not destroyed because the watercourse is interrupted by occasional natural obstructions or portages;

> nor need the navigation be open at all seasons of the year, or at all stages of the water.
>
> * * * * *
>
> Our attention is called to the fact that in *People* v. *Economy Power Co.*, 241 Illinois 290, 320–338, the Supreme Court of Illinois held that the Desplaines in its natural condition is not a navigable stream; and it is intimated that we ought to follow that decision. * * * Of course, the decision does not render the matter *res judicata*, as the United States is not a party. The District Court in the present case treated it as not persuasive, because it appeared that evidence was wanting which is present here; and we cannot say that the court below erred in not following it.

United States v. *Rio Grande Irrigation Company*, 174 U. S. 690, was a suit by the United States to restrain the defendant from constructing a dam across the Rio Grande River, in the Territory of New Mexico, and appropriating the waters of that stream for the purposes of irrigation. The bill averred that the river was navigable in New Mexico and that the building of the dam would interfere with navigation on the lower reaches of the river. Considering the navigability of the river this Court said (p. 698):

> * * * The mere fact that logs, poles and rafts are floated down a stream occasionally and in times of high water does not make it a navigable river. It was said in *The Montello*, 20 Wall. 430, 439, "that those

> rivers must be regarded as public navigable rivers in law which are navigable in fact. And they are navigable in fact when they are used, or are susceptible of being used, in their ordinary condition, as highways for commerce, over which trade and travel are or may be conducted in the customary modes of trade and travel on water." And again (p. 442): "It is not, however, as Chief Justice Shaw said, 21 Pickering, 344, 'every small creek in which a fishing skiff or gunning canoe can be made to float at high water which is deemed navigable, but, in order to give it the character of a navigable stream, it must be generally and commonly useful to some purpose of trade or agriculture.' "
>
> Obviously, the Rio Grande within the limits of New Mexico is not a stream over which in its ordinary condition trade and travel can be conducted in the customary modes of trade and travel on water. * * *

The case of *Toledo Liberal Shooting Co.* v. *Erie Shooting Club,* 90 Fed. 680, 682, decided by the Circuit Court of Appeals, Sixth Circuit, composed of Taft and Lurton, Circuit Judges, and Severns, District Judge, involved the navigability of Maumee Bay, a bay or arm of Lake Erie about 4,000 acres in extent. In reaching the conclusion that the bay was not navigable, Mr. Justice Lurton for the court said:

> * * * From June to October, this body of water is covered with a mass of aquatic vegetation, such as wild rice, rushes, etc.

It is then impenetrable, save by the laborious method of punting. At no time is the greater part of this marsh susceptible of supporting "commerce" in any reasonable sense of the term. That the water stands permanently, and that it has a deep opening into Lake Erie, does not establish that this shallow body of water is capable of sustaining commerce, or is burdened with a public use. It is nothing more or less than a marsh opening into the lake. To be navigable in law, it must be navigable in fact; that is, capable of being used by the public as a highway for the transportation of commerce.

None of the characteristics of commercial navigability are shown here. It is the natural feeding ground of the duck and other waterfowl. In their pursuit by canoe and flat-bottomed ducking boats the water may be navigated. That is not commerce, and proves nothing. The same test would convert every pond and swamp capable of floating a boat into a navigable stream or lake. This bay is not a highway, never has been, and can never be. At the common law the term "navigable" had a technical meaning, and was applied to all streams or bodies of water in which the tide ebbed and flowed. All such waters were public. That definition is not applicable in this country, and all waters are held navigable in law, and subject to a public use, which are by their character capable of use as highways, for purposes useful to trade or agriculture. It is

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> the capability of being navigated for useful purposes, which is the test. * * *

The case of *Harrison* v. *Fite*, 148 Fed. 781 (C. C. A. 8th), involved the navigability of Big Lake and Little River in the State of Arkansas. After reviewing the evidence, the Court held the waters were not navigable, saying at page 784:

> * * * Mere depth of water, without profitable utility, will not render a water course navigable in the legal sense, so as to subject it to public servitude, nor will the fact that it is sufficient for pleasure boating or to enable hunters or fishermen to float their skiffs or canoes. To be navigable a water course must have a useful capacity as a public highway of transportation. * * *

and at page 787 the court said:

> * * * Witnesses testified that in times of high water there has been no successful navigation of it in recent years, except with a gasoline launch drawing but a few inches of water, and with canoes, skiffs, and dugouts of the hunters and fishermen; that it is not being used to float the products of the fields and forests to market, and cannot be profitably and successfully used for that purpose. * * *

Leovy v. *United States*, 177 U. S. 621, was a criminal prosecution for building a dam across a stream known as Red Pass, alleged to be navigable waters of the United States, without permission of the Secretary of War. Referring to the navigability of the stream, this Court said (p. 627):

> As respects navigation through Red Pass, there was some evidence, on the part of the government, that small luggers or yawls, chiefly used by fishermen to carry oysters to and from their beds, sometimes went through this pass; but it was not shown that passengers were ever carried through it, or that freight destined to any other State than Louisiana, or, indeed, destined for any market in Louisiana, was ever, much less habitually, carried through it.

The case of *North American Dredging Co.* v. *Mintzer,* 245 Fed. 297 (C. C. A. 9th), involved the navigability of a channel of San Pablo Canal. The District Court found the waterway was not navigable. The Circuit Court of Appeals adopted the findings of the District Court to the following effect (p. 298):

> The turning point in the case is whether or not the waterway involved is navigable. It was the opinion of the District Court that it was not; that it never had been in fact navigable in any true sense, and has not been considered, either by the public or by the authorities of the state of California, as capable of navigation; * * *
>
> * * * The particular channel in controversy branches from a larger stream a short distance south from where the San Pablo creek debouches from the marsh land into San Pablo Bay, and thence it winds its way throughout the length of the tract of 500 acres. The channel varies in width and

depth from 100 feet or over in its lower reaches, and narrowing farther south, with a depth varying with the tide from 2 feet or less at low tide in its shallowest parts toward the south to approximately 7 or 8 feet at its flood, and deepening as it flows to its mouth enters the San Pablo Canal. * * *

The San Pablo Canal has always been navigated to some extent, but the channel in controversy and other sloughs intersecting the land have never been used or regarded as available for any kind of navigation other than for duck boats or punts for hunting and fishing. * * *

From a consideration of the decisions, it will be seen that this Court has never held a river or lake navigable unless the evidence clearly showed that the river or lake was used, or was susceptible of being used, in its ordinary condition as a highway for commerce, over which trade and travel was or could be conducted in the customary modes of trade and travel on water.

In those cases in which a river or lake has been held by the Federal courts to be not navigable, such as Red River in *Oklahoma* v. *Texas, supra;* the Arkansas River in *Brewer Oil Company* v. *United States, supra;* the Rio Grande in *United States* v. *Rio Grande Irrigation Company, supra;* Red Pass Bayou in *Leovy* v. *United States, supra;* San Pablo Canal in *North American Dredging*

Company v. *Mintzer, supra;* Maumee Bay in *Toledo Liberal Shooting Company* v. *Erie Shooting Club, supra;* and Big Bay and the Little River in *Harrison* v. *Fite, supra;* there was a use of the water in question for the purpose of floatage of boats far in excess of anything disclosed by the evidence in connection with Malheur Lake, Mud Lake, and Harney Lake; also, the physical characteristics were far more favorable for the purpose of boating than in the present case.

The lakes in the present suit possess neither size, depth, constancy in stand of water, permanency of area, nor any shore line, which will permit them at any time to be used in their natural or ordinary condition as highways of commerce. Boating upon the lakes in question, as will appear elsewhere in this brief (Brief, pp. 63–69, and Appendix, pp. 108–142), was confined principally to a few hunters and trappers who sought waterfowl and muskrats in and about the tules.

It is difficult to find any lake, stream, or pond in the United States, large enough to float a boat, on which some person has not at some time operated a boat or small water craft but this is not the test of navigability as hereinbefore pointed out.

(D) The Evidence as to Navigability

Applying the test of navigability as laid down by the foregoing decisions of this and other Courts, the findings of fact made by the Special Master

set forth on page 17, of this brief, and embraced in Finding XXI, page 118 of the Special Master's Report, establish the non-navigability of the lakes in question. The findings are abundantly sustained by the evidence which will be discussed fully.

The Special Master's Findings XVIII and XX, at pages 111 and 115 respectively of his report, give the location of the lakes, the geography, population and physical features of the country. In his report on page 22, the Special Master makes the following pertinent observation:

> It is difficult to entertain the idea that a lake made up of 47,670.4 acres is navigable, with water throughout the lake at a mean elevation of 4093 and with depths shown in Finding XXII as follows:
>
> *Malheur Lake Division at 4093 (Depths)*
>
	Acres
(a) Lands under water of 1 foot, or less	11,715.8
(b) Lands under between 1 and 2 feet	10,126.6
(c) Lands under between 2 and 3 feet	6,988.4
(d) Lands under between 3 and 4 feet	10,821.2
(e) Lands under between 4 and 5 feet	26.8
Lands under water	39,678.8
Lands above water surface	7,991.6
>
> The lands classified according to depths are not in compact bodies (Plaintiff's Contour Maps 3A and 4A) which strengthens the conclusion that the waters were not navigable in any practical sense.
>
> There is not a single item of evidence that any commodities were ever transported over the waters of Malheur Lake except a small

quantity of hay in a single instance (Johnson, Joint Abstract, Vol. II, p. 979), and fur-bearing animals.

The annual evaporation in the region was 40 inches per annum. The area involved was truly and aptly described by Colonel William Hanley, a well-known figure in that country, as an "evaporating pan" (Joint Abstract of Record, Vol. I, p. 390, line 10).

The region has been dry for years and the experience of an actual inspection of the area involved on November 1, 1931, has been already related (*supra*, p. 13).

That inspection showed that (p. 13):

> At that time the entire area was dry and showed no signs in the soil of ever having been under water *except about 400 acres in Malheur Lake* to a negligible depth which was surrounded by about 1,000 acres of mud. * * * The elevation of the 1,400 acres varied from 4,090 to 4,092 feet above sea level, which was below the average elevation of the meander line fixed in the findings as 4,093 feet above sea level.

1. EARLY HISTORICAL AND SCIENTIFIC DATA WITH REFERENCE TO THE LAKES IN QUESTION ARE CONCLUSIVE PROOF OF THE NONNAVIGABILITY OF THE LAKES AT THE DATE OF STATEHOOD, FEBRUARY 14, 1859

The earliest historical notice of the Malheur-Harney Lakes region appears in the journal of Peter Skene Ogden, Hudson Bay trader, who visited the lakes in 1826. Professor Clark, in his report of his examination of the historical docu-

ments in which the lakes are mentioned,[2] quotes Ogden's journal as follows:

> November 1st at sunset we reached the lakes. A small ridge of land, an acre in width, [209 feet, Vol. II, p. 1097—Pecore] divides the fresh water from the salt lakes. These two lakes have no intercourse. The fresh water has an unpleasant taste. One mile wide, 9 long. In this (salt) lake discharge the Sylvailles River and two small streams.

A rough sketch of the lake and river (see Plaintiff's Exhibit 34; Vol. II, p. 1040) was prepared by Ogden. This sketch shows the Sylvailles (Silvies) River running into a large lake. The context of the journal indicates that the lake mentioned is now known as Harney Lake.

Ogden's first view of this region was in November, which is one of the low-water months, and it is significant that Harney Lake was the only lake of sufficient size to engage Ogden's attention to the extent that he mapped it. (Plaintiff's Exhibit 34.) Ogden and his fellow trappers were familiar with Sylvailles (Silvies) River because the object of their trip was trapping beavers, and many animals were taken on this River.

When Ogden returned, in June of 1827, he designated the water of the lakes as being very high,

[2] (Index, Title R. Survey of the History of the Harney-Malheur Lakes Region, 1825–1872, Vol. I, p. 104 *et seq.*; Vol. II, pp. 1015, 1017).

and also noted that the Sylvailles (Silvies) River and the lakes were discharging into Harney Lake. (Vol. II, p. 1018.) Even from the meager description given by Ogden in his journal, which is in no sense of the word a scientific work, it is quite clear that at that early date there was a gap in the Sand Reef through which the waters flowed at time of high water.

The next explorer who visited this region was John Work, in the month of July, 1831. Work was also a Hudson Bay trader. Work remarked in his journal that Harney Lake was unusually[3] high. What his standard of comparison was to determine whether the lake was high or low does not appear. In all probability Work obtained his information as to previous water conditions from Payette who was with the Ogden expedition. (Vol. II, pp. 1018, 1041.)

Work's description of the lake, which was known to him as Sylvaille Lake, most certainly describes Harney Lake. The character of the water which Work found is typical of Harney Lake, and not of that in Malheur. The fact that neither Ogden nor Work paid any particular attention to Malheur Lake is very significant, because both of these men were active in the fur trade, and it was natural for them to note the most prominent physical charac-

[3] The word in the original Record (p. 327) is "unusually," as here stated. In the Abstract of Record (p. 1018), the word is incorrectly stated as "usually".

teristics of the country which they visited, in order that trappers who travelled the country in later years could have the benefit of the landmarks noted by them. Other persons passed by the lakes subsequent to the year 1831, principally emigrants on their way to the Willamette Valley. (Clark, Vol. II, pp. 1046, 1048.)

A number of maps were published during this period which indicate the presence of three lakes. The source from which the mapmakers got their information is not known. It is certain that John C. Fremont never visted the lakes. All of these maps are inaccurate in many respects and show the lakes draining into the Malheur River. (Clark, Vol. II, pp. 1018—1019.)

The most satisfactory evidence as to the physical characteristics of the lakes at or about the time of the admission of Oregon into the Union is found in the reports and maps of Lieutenant Joseph Dixon, United States Topographical Engineer.[4]

Considerable weight should be given to the observations and maps prepared by Lieutenant Dixon. (Plaintiff's Exhibits 23, 25, 35.) He was a member of the United States Topographical Engineers, and, therefore, a skilled engineer and topographer. His reports and maps are entitled to consideration as scientific documents. The sole object of attaching him to the expeditions into the Harney Basin

[4] Senate Executive Doc. No. 1, Serial 1120, Vol. IV—Maps, 37th Cong., 2d sess. [1861], map No. 29; Abstract of Record, Vol. II, p. 1019 *et seq.*

was to map the country and study the easiest travel routes for the benefit of the army and incoming settlers. His maps and reports are the first scientific observations of the lakes and the surrounding country, and in point of time are almost coincident with Oregon's admission to statehood. A comparison between his maps and those of later years demonstrates the accuracy of Dixon's work.

The first expedition (1859) located Harney Lake and named it for the department commander, General Harney.[5]

The lake was described as being 18 to 20 miles long and 9 to 10 miles wide, and "the water was so salty that our animals would not drink it." (Vol. II, p. 1020.) The expedition crossed a sand ridge and found a small fresh-water lake "not very good, but still drinkable; we named this Lake Stampede."[6]

A study of the maps clearly indicates that the sand ridge referred to is the same one in existence to-day and known as the Sand Reef. The ridge was broken through at that time because the map shows Cricket River (Silvies) as running into Harney Lake. All of that part of Malheur Lake and Mud Lake as shown on the modern maps, lying west of

[5] House Executive Doc. (1859–60), Serial 1051, Vol. 9, p. 217; Senate Executive Doc. 1859–60, 1st Session, 36th Congress, Serial No. 1031, Vol. 9, Doc. 34, p. 36; Abstract of Record, Vol. II, p. 1020.

[6] House Executive Doc. (1859–60) Serial 1051, Vol. 9, p. 217; Senate Executive Doc. (1859–60) Serial 1031, Vol. 9, p. 36; Abstract of Record, Vol. II, p. 1019.

the mouth of Silvies River, is designated as Stampede Slough and marked with the customary map symbol for swamps. This is conclusive proof that as of the date of statehood a substantial part of Lake Malheur Reservation within the Neal Meander Line was not a lake but land. To the east of the Stampede Slough and at the mouth of the Blitzen, Lieutenant Dixon shows a small body of open water. In this respect there is a striking similarity between Lieutenant Dixon's maps of 1859 and 1860 (Plaintiff's Exhibit 25) and the Cooper-Dodge Map of 1914 (Defendant's Exhibit X—6).

There is no suggestion in Lieutenant Dixon's reports and maps which would support to the slightest degree a claim that as of the date of statehood either of these lakes possessed those qualifications necessary to denominate them as navigable waters. (See Vol. II, pp. 1033–1039.)

While not entitled to the same weight as a scientific document as the Dixon report, nevertheless the report of Capt. George Currey of the expedition of the Oregon Volunteers against the Indians in 1864 should be given consideration. The report is contained in an official publication of the State of Oregon. (Plaintiff's Exhibit 23, Clark, Vol. II, p. 1031 *et seq.*) This report characterizes the eastern part of Malheur Lake as being shallow, with a bottom composed of made deposit of vegetable matter and alkali; the water brackish, filled with the excre-

ment of wild geese and other waterfowl; the banks low and covered with greasewood. As to Harney Lake, he describes it as a much more respectable body of water than Malheur Lake, with deeper water and higher banks, but the water decidedly more alkaline. Selvies (Silvies) River is described as a tributary of Stampede Lake. (Vol. II, pp. 1031–1033.)

The expedition notes the existence of a gap in the Sand Reef, which had a quicksand bottom. The expedition could not on this account cross the Sand Reef, and was forced to turn back and circle Harney Lake. The report expresses an opinion that Stampede Slough in early summer is nothing more than an arm of Malheur Lake. (Vol. II, p. 1033.) Jessup states: "at elevations about 4,092, or probably a little higher, the water in the main or central portion of Malheur Lake becomes separated from any water that may exist in the western part of the (Malheur) Lake or at the Narrows, or at Mud Lake."[7]

When these reports of the early explorers are read in connection with the scientific report of Jessup (Plaintiff's Exhibit 52) and considered in the light of the testimony of the lay witnesses, it is quite apparent that in 1859 the lakes possessed no more qualifications for the purpose of navigation than they do to-day.

[7] Plaintiff's Exhibit 52, pp. 45, 45b, 67, and Figure 14; also Vol. II, pp. 1069, 1070, 1074–1078.

2. THE LAKES ARE DEVOID OF EVERY PHYSICAL CHARACTERISTIC NECESSARY TO CONSTITUTE THEM NAVIGABLE IN FACT

The evidence in this case, which will be discussed in more detail, shows all of the lake-bed areas almost completely dry at the time of trial, a condition which has occurred periodically with the dry cycles in the past, and a condition which will, with reasonable certainty, occur in the future. The lakes have no fixed water area. They are shallow in depth. Where the lake shore begins or where the lake ends, no witness, even though he knew the lakes for more than 40 years, could say with any degree of certainty. The lakes have never been used for the transportation of merchandise, and can have no practical utility for this purpose in connection with any road. Malheur Lake and Mud Lake were filled with tules and weeds to the extent that even hunters and trappers found difficulty in pushing and pulling small boats about in their pursuit of game. Harney Lake is equally worthless for boating purposes.

Depth and area of Malheur Lake

Plaintiff's Exhibit 3 graphically illustrates the reason why Malheur Lake can never attain any great depth of water. The contours shown on the map were made at a time (1931) when the lake had less than 400 acres of water in the aggregate, and this in disconnected ponds. The contours show a minimum elevation of 4,088.8 feet.

If a water surface elevation of 4,093 feet is assumed, there would be 8,000 acres in islands and promontories within the Neal Meander Line (Pecore, Vol. I, p. 315), while only 60 acres out of a total water surface area of 44,360 acres have a depth in excess of four feet. None has a depth in excess of 4½ feet. The remaining acreage would be distributed:

14,000 acres, 0 to 1 foot;
12,700 acres, 1 to 2 feet;
6,800 acres, 2 to 3 feet;
10,800 acres, 3 to 4 feet;

(Jessup, Plaintiff's Exhibit 52, p. 45; Tables 12 and 13, pp. 45a and 45b.)

The above water areas do not represent solid bodies of water. Much of the area will be made up of small lakes and ponds separated by ridges of land from the main body of the lake. An examination of the contours and elevations on Plaintiff's Exhibit 3 makes this self-evident

If a water surface elevation of 4,092 feet instead of 4,093 feet is assumed, a marked change is produced in the distribution of depths. Water covers 10,800 acres to a depth of from 3 to 4 feet at an elevation of 4,093 feet, but at an elevation of 4,092 feet only 60 acres of that depth are covered (Plaintiff's Exhibit 52, Table 13, p. 45b), and 19,733 acres become dry land (Pecore, Vol. I, p. 137). At this water elevation and at all lower elevations the number of small separate ponds and lakes necessarily

increases. Jessup states that at about this elevation, 4,092 feet, the lake does not extend past a ridge known as Graves Island, which divides the main lake from the island area to the west.[8] These comparisons might be extended to include other elevations, but those already given serve to illustrate the marked fluctuations of area by comparatively small changes in the water level. These changes in water level and even greater changes may be produced either by fluctuations in precipitation or by evaporation, and such fluctuations are not unusual in Harney Basin. The depths and acreage shown in Jessup's report are accurate because the elevations used as a basis of calculation are from Plaintiff's Exhibit 3, which was prepared after the lake was dry.

It is quite apparent that the Cooper-Dodge map (Defendant's Exhibit X–6) is inaccurate both as to depth of water and as to the elevation of the water surface. The map was prepared on the assumption that the water surface elevation, February, 1914, was 4,094.6 feet. That this elevation is too high is borne out by the known climatic conditions.[9] The water surface elevation was lower than this in the summer of 1913 (Plaintiff's Exhibit 52, Table 14, p. 67), and the precipitation in the fall of 1913 and

[8] Plaintiff's Exhibit 52, p. 45; Table 13, p. 45b, and Note on p. 67; also Abstract of Record, Vol. II, pp. 1070, 1074–1078.

[9] Jessup, Vol. II, pp. 1079–1085; Plaintiff's Exhibit 52, pp. 7–31, 79.

early winter of 1914 was not sufficient to raise the water level.

It will also be noted that on the Cooper-Dodge map (Defendant's Exhibit X-6), except at the east end of the lake, the water as shown on this exhibit *does not reach the Neal Meander Line.* This line has a mean elevation of approximately 4,093 feet. Pecore states as a mathematical fact (Vol. I, pp. 135 and 136) that at a water surface elevation of 4,094 feet 7,500 acres are flooded outside the Neal Meander Line. This elevation is 6 inches less than the elevation of the Cooper-Dodge map of 1914. It is apparent that this inaccuracy of elevation was due to the fact that the Cooper-Dodge line was not closed and proper allowance was not made for ice conditions.[10]

Cooper, one of the compilers of this map, refers to Malheur Lake *as a tule marsh.* (Vol. II, p. 869.) Study of this Exhibit (Defendant's Exhibit X–1; Vol. II, p. 862) is invited, because it was prepared in pursuance to an official investigation of the State of Oregon made for the purpose of inquiring into future uses of Malheur Lake. It will be observed that the report and the accompanying map contain no suggestion that any of the lakes have possibilities as navigable waters.

The Dodge map of 1916 (Plaintiff's Exhibit 57, Vol. II, pp. 917–918) fully corroborates the Government's testimony with reference to the exist-

[10] Pecore, Vol. II, p. 897; Dodge, Vol. II, pp. 894–897.

ence of many thousand acres of land in the western half of the Malheur Lake and Mud Lake areas used and useful for agricultural purposes.

The subject of the shallow, inconstant depth and area of the lakes might be pursued indefinitely through hundreds of pages of oral testimony and many written exhibits. All of this evidence has been arranged according to subjects of proof and time [11] and reference is made thereto should further examination of the subject be desirable. All of the testimony is in agreement to the effect that the lakes have had a vagrant outline varying from day to day and year to year; that tules have always covered a substantial part of Malheur and Mud Lakes, and that in the summer months the small areas of open water are conducive to a covering growth of sago pond weed and arrowleaf, both shallow-water plants.[12] Such a picture is indicative of nonnavigable lakes. Hanley described the lakes aptly and correctly when he referred to them as an "evaporating pan." (Vol. I, p. 390.)

The effect of the scientific evidence is briefly noted. Lieutenant Dixon found the Lake Malheur Reservation east of the Sand Reef a mass of tules in 1859 and 1860. (Plaintiff's Exhibits 24, 25, 35.) The State's maps (Defendant's Exhibit X–6, Dodge map of 1914, and Plaintiff's Exhibit 57,

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[11] See Vol. I, p. 65 *et seq.*, Title C. Meander Line of 1895—Neal; Vol. I, p. 66 *et seq.*, Title D, Malheur Lake.

[12] Jessup, Plaintiff's Exhibit 52, p. 40; Jewett, Vol. I, p. 629.

Dodge map of 1916) confirm Lieutenant Dixon's earlier reports as to the shallow, swampy, and weedy characteristics of the lakes. Plaintiff's Exhibits 3 and 4 by means of contour lines and elevations, demonstrate to a mathematical certainty that these lakes can never attain a depth sufficient for the practical floatage of boats. See also Jessup, Plaintiff's Exhibit 52.

A mean annual precipitation of the Harney Valley of from 8½ (Jessup, Plaintiff's Exhibit 52, p. 9, and Tables) to 10 inches (Amended Answer, p. 14) is not conducive to a sustaining inflow of supply water for these lakes. This is especially true because the great percentage of the precipitation occurs in the winter months. The other months are practically dry. The extremely high rate of evaporation takes toll of the waters of the lakes. The annual evaporation is estimated from 40 (Amended Answer, p. 15) to 43 inches.[13]

In addition to the evaporation much water is lost from the lakes by transpiration through rules and cattails. (Plaintiff's Exhibit 52, p. 78.) Jessup reaches the conclusion that a water surface elevation of 4,093 feet can not be maintained because sufficient water is not available for that purpose. (Plaintiff's Exhibit 52, p. 79.) In this conclusion Jessup is sustained by all of the scientific and lay testimony in the record.

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[13] Evaporation Records, in Defendant's Exhibit X–1, Abstract of Record, Vol. II, p. 871; Jessup, Plaintiff's Exhibit 52, p. 78.

Mud Lake

No lengthy discussion of Mud Lake appears necessary. The early maps incorporate Mud Lake as a part of Malheur Lake [14] and many of the witnesses did not differentiate in their testimony between conditions in the western part of Malheur Lake and Mud Lake. All of the testimony indicated that, as compared to area, there were more tules and less open water in Mud Lake than in Malheur Lake.[15] Reference is made to the exhibits cited above in the discussion of Malheur Lake for conditions on Mud Lake. Between The Narrows bridge and the east base of the Sand Reef at an elevation of 4,093 feet there would be a total water surface area of 4,381 acres, of which 3,056 acres are within the Neal Meander Line, together with 810 acres of exposed land. An examination of the contours and elevations on Plaintiff's Exhibit 4 (Pecore map) will demonstrate the physical deficiencies which prevent Mud Lake from attaining sufficient depth for floatage of boats.[16] If Malheur Lake is not navigable, it follows that Mud Lake is not.

Harney Lake

Harney Lake has always been a natural sump for the waters of Malheur Lake. It has no outlet. (Jessup, Plaintiff's Exhibit 52, p. 3.) The first

[14] Lieutenant Dixon, Plaintiff's Exhibits 25 and 35.

[15] See Index, Vol. I, p. 89 *et seq.*, Title F. Mud Lake.

[16] For boating experiences on Mud Lake see Appendix to this brief.

explorers noted its strong alkaline qualities which rendered it undrinkable for either man or livestock.[17]

Plaintiff's Exhibit 4 depicts the extremely flat characteristics of Harney Lake, and this condition is illustrated by the fact that at the time of trial the water area of Harney Lake was approximately 2,000 acres, having a depth of from one to two inches. (Pecore, Vol. II, p. 816.)

Harney Lake is nothing but a great barren alkali flat, practically as level as a floor, without any vegetation on it at all. (Pecore, Vol. II, p. 808.) Some portions of it have a gradual sloping bank toward the lake, but it is not a well-defined bank near the meander line. (Pecore, Vol. II, p. 808.) The west side of Harney Lake is level.[18]

The water of Harney Lake has always varied in area from season to season and from year to year, with never two years alike.[19] There was very little water in Harney Lake prior to 1890, and the water has been receding for years.[20] In June, 1888, Harney Lake was quite a big body of water.[21]

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[17] Peter Skene Ogden, Vol. II, p. 1017; John Works, Vol. II, p. 1018; Lieutenant Dixon, Vol. II, p. 1020; Whiting, Vol. II, p. 810; Bardwell, Vol. II, p. 813; Doctor Hibbard, Vol. II, p. 815; Index Vol. I, p. 91 *et seq.*, Title G, Harney Lake.

[18] Plaintiff's Exhibit 4; Cecil, Vol. II, p. 809; Mrs. Emma Miller, Vol. II, p. 809.

[19] Cecil, Vol. II, p. 811; Bardwell, Vol. II, p. 813.

[20] Cecil, Vol II, p. 811.

[21] McGee, Vol. II, p. 814.

Mrs. Emma Miller (Vol. II, p. 812–813) lived near the lake during the period 1889–1908. She states that the first three or four years she lived there the water of the lake remained about the same; but that in 1889 it was the lowest she had ever seen it until about 1906, when it began to recede. In 1897 or 1898 the water was a great deal higher than she had ever observed it either before or since that time.

Doctor Hibbard (Vol. II, pp. 815–816) states that he has never visited Harney Lake when there was as much water as there was in June, 1889.

Bollenbaugh (Vol. II, p. 815) during the period 1890–1900 saw the lake pretty high for two or three different years.

Hamilton (Vol. II, p. 811) states that in recent years the lake has been dry.

Triska (Vol. II, p. 816) states that during the three years that he was Warden of the Lake Malheur Reservation (1915–1918) there was not very much water in Harney Lake.

The shallowness of Harney Lake is well illustrated by the testimony of Mrs. Emma Miller (Vol. II, p. 812), who states that she and her children, ages 5 years to 7 years, waded out into the lake to hunt arrowheads that could be seen under the water, and "Those little fellows could wade out quite aways."

No depths have been found in Harney Lake exceeding 2 or 2½ feet.

McGee states that one evening in June, 1888, the wind blew the water of Harney Lake about 300 feet, and the next morning the water had receded, leaving a lot of dead fish out on the sand. (Vol. II, p. 814.)

It is apparent that the lake has no stable or constant stand of water. The lake is subject to the same physical conditions as Malheur Lake, and those natural causes which dry up Malheur Lake will produce a corresponding effect upon Harney Lake. The alkali-coated sand around the borders of Harney Lake tends to give it the appearance of being much larger than it really is. Harney Lake has never been of any use to the settlers. It produced no hay.

Tree Rings

The study of tree rings indicates that recurring dry cycles in the past have, from time to time, reduced the water areas of the lakes to areas comparable with those existing at the time of trial.

Modern science has accepted the study and measurement of tree rings as evidence of climatic conditions in the past. The report prepared by Mr. Jessup on this subject (Plaintiff's Exhibit 52, p. 24) is based upon the examination of four trees selected from four widely separated locations in the Harney Basin. The average of the tree-ring measurements is calculated to give a fair chart of the precipitation in the Harney Basin for approximately 200 years, and, hence, to reflect the probable

fluctuations during that period of the area of the lakes in question.

The report of the study of the tree rings becomes especially valuable as evidence when it is read in connection with known climatic conditions. There is no available evidence as to the area of water in the lakes in question for the decade ending in 1850. There is unmistakable evidence that Goose Lake (located in Lake County, Oregon, and Modoc County, California) at times during that decade was absolutely dry. Hundreds of immigrants came into Oregon during that period, and the road through Oregon passed through the dry bed of Goose Lake.[22]

Figure 9, attached to the Jessup report (Plaintiff's Exhibit 52, opposite p. 28), indicates a meager tree growth during this period. When this decade is compared with the decade between 1920 and 1930 it is fair to assume that the area of the lakes during the decade from 1840 to 1850 was considerably less than it was at the time of trial. The tree-ring growths indicate that between 1850 and 1855 there was an upswing of precipitation. Whether or not this upswing was sufficient to make a substantial increase of the areas of the lakes in question is a matter of speculation. It is quite apparent that in order to bring the lakes back there should be a wet period equal to the deficiency of the dry period.

[22] Plaintiff's Exhibit 33; Clark, Vol. II, pp. 1014, 1015; Finley, Vol. II, p. 1063.

Immediately after 1855 a deficiency in the precipitation appeared, and this continued apparently until about 1858 or 1859.[23] This deficiency undoubtedly accounts for the fact that at the time of the Wallen and Steen expeditions the topographer Lieutenant Dixon identified Mud Lake and Malheur Lake (Plaintiff's Exhibits 24, 25, 35) as tules and sloughs.

The tree-ring study from the period of 1855 to 1859 ties in nicely with the known facts with reference to precipitation at five Western stations during that period. All of these stations showed a precipitation below normal. (Jessup, Plaintiff's Exhibit 52, p. 29.)

Reading the tree-ring study in connection with the Wallen and Steen reports, and also with the climatic reports of five Western stations for that period, a conclusion is justified that in the year 1859, when Oregon was admitted into the Union, the lakes had been reduced to an area comparable with that of the dry periods of recent years, as recounted by the witnesses.

The tree-ring study becomes more impressive when we are able to identify by tree-ring measurements the known excessively wet years between 1880 and 1885, the unusually dry year of 1889, the wet year of 1904, etc.

Figure 8, attached to the Jessup report (Plaintiff's Exhibit 52, opposite p. 26), graphically shows

[23] Jessup, Plaintiff's Exhibit 52, Figure 9, opposite p. 28.

that the growth or lack of growth of tree rings follows the amount of precipitation. The tree-ring study carries the physical history of the lakes from the year 1735 to the present time. A study of Figure 9 (attached to same Exhibit) indicates that the lakes in question, for a period of two centuries, fluctuated from year to year in the same manner in which they have fluctuated for the past fifty years. This lack of stability of the water area of the lakes will be further considered in reference to Jessup's study of peat. (Plaintiff's Exhibit 52, p. 80.)

Peat

The presence of peat throughout practically the entire area within the Neal Meander Line indicates that Malheur Lake and Mud Lake have always been shallow bodies of water at their best. (Jessup, Plaintiff's Exhibit 52, p. 84.) An extensive examination of the dry lake bed in 1931 disclosed peat varying in depth from 12 to 30 inches. In samples of peat taken at random locations Mr. Jessup was able to identify the remains of tule roots still intact. In other places the roots had almost entirely disappeared, but he noted the presence of peculiar fibrous disks from the joints of tule roots.

Tules prefer the shallow margins of lakes for growth.[24] All of the evidence in the case indicates the heaviest growth of tules in the shallowest parts of Mud and Malheur Lakes.[25]

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[24] Jessup, Plaintiff's Exhibit 52, pp. 40, 80, 83–84.

[25] Defendant's Exhibit X–6 and Plaintiff's Exhibit 57.

Particular attention was given by Jessup to that part of Malheur Lake designated on the map (Plaintiff's Exhibit 3) as the "Grain Field" (Plaintiff's Exhibit 52, p. 81). Practically all of the "Grain Field" lies below an elevation between 4,089 and 4,090 feet. The "Grain Field" is located at one of the lowest parts of the lake. If there was any water in the lakes at all, it would be found at this location. The presence of peat in the "Grain Field" is positive evidence that Malheur Lake at this location has been practically dry before the present time.

At a point about one-half mile below the "Grain Field" a number of buffalo skeletons were found. The elevation of this location is also below 4,090 feet. Some of these bones were found imbedded in tule peat. The depth of the peat is an indication that tules must have grown at this location for a considerable length of time. A vast amount of decaying vegetation was necessary to produce peat of the depth found.

As to when the peat accumulated is a matter of speculation. Certainly some of it is of very ancient origin. The presence of the tule peat over practically the entire lake bed is further proof that in past years the lake has been subject to extreme fluctuations both as to area and depth, and that at times the lake completely disappeared.

Dead Sagebrush in the Lakes

Numerous witnesses have observed dead sagebrush and greasewood in all three of the lakes.[20] The presence of this dead stubble is definite and conclusive evidence that the lakes have been dry in past years. Scientists agree that these plants are distinctly the product of dry, arid soils. These plants cannot grow in watered soils nor upon soils subject to frequent overflow. (Jessup, Plaintiff's Exhibit 52, p. 41.) As to when these plants grew is a matter of speculation. Likewise whether the plants all grew the same years is a matter of speculation. The fact remains that these plants could not have grown in the lake beds had the water of

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[20] *Malheur Lake*

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the lakes been there. This evidence amply demonstrates that the lakes are without constancy either as to depth or area.

Artificial irrigation has had little, if any, effect upon the navigability of the lakes

The State of Oregon, in its Amended Answer (pp. 15, 31, 44), pleads that there have been substantial diversions from the Silvies and the Donner und Blitzen Rivers for the purpose of irrigation, and that this has reduced the amount of water in these lakes. There is no substantial proof of this allegation in the record. On the contrary, the Government's evidence shows that artificial irrigation has had little, if any, effect upon the amount of water. (Jessup, Plaintiff's Exhibit 52, p. 72.) Jessup points out that the early settlers found great natural meadows which were annually inundated by spring floods, and after the recession the wild hay was available for feed for livestock. Lieutenant Dixon indicates on his maps a substantial area of wet lands. (Plaintiff's Exhibits 25 and 35.) All of the early settlers refer to a similar condition. There has been no substantial change from the old natural irrigation system. (Jessup, Exhibit 52, p. 72; Hanley, Vol. II, p. 940.)

The Special Master found (S. M. R. pp. 117, 129):

> The low-water conditions existing since 1917 have not been caused in any considerable measure by the impounding of waters

in reservoirs on the Silvies and Blitzen Rivers, or the use of those waters for irrigation. The lack of precipitation has been the chief cause of such low-water conditions.

It is not true that if the Silvies and Blitzen Rivers were allowed to flow into the lakes as they had been wont to flow, or without diversion for irrigation, the waters of said lakes would at the present time be at or beyond the Meander Line Boundary.

As will be shown, the lakes are so shallow and so destitute of any banks that they are not navigable in their natural state. Any temporary or even permanent taking of some of the water for irrigation cannot make any difference in navigability. If such withdrawal has any effect it merely reduces the area of the thin film of water which is spread out over the flat surface of the plateau.

While Harney Valley is approximately 4,100 feet above sea level, it is a vast flat, alluvial, barren, and desolate plain of such conformation that the presence of more water merely extends the area of wet lands unfit for navigation. The Supreme Court of Oregon (*In re Rights to Use of Waters of Silvies River* (1925) 115 Or. 27, 34) has described Malheur Lake as "a huge swamp." This lake and Mud Lake, connected with it by The Narrows, have no banks. Any noticeable increase in the volume of water coming into them flows on into Harney Lake, which has no banks on the western end, so that any addition to their supply of water simply spreads out over the landscape.

The contour maps of these lakes (Plaintiff's Exhibits 3 and 4) show that when the water surface of Malheur Lake reaches an elevation of about 4,092 feet, the three lakes are connected. If the water could be raised one foot, the water of Malheur and Mud Lakes would spread over 15,400 additional acres and these lakes would have a combined water-surface area of 49,000 acres, the greater part of which would be less than two feet deep. It would require 41,300 acre-feet to raise the level of the water from 4,092 to 4,093 feet.[27] The lakes and their surroundings, therefore, are nothing more than vast, shallow evaporating pans.

According to the best available estimates[28] the total annual inflow to Malheur Lake for the years from 1908–1909 to 1929–1930 inclusive, averaged 112,000 acre-feet.

The Special Master found (S. M. R. 116–117):

> The only evidence respecting the discharge of the Silvies River on the north and the Donner und Blitzen River on the south into the Malheur Lake Division is contained in Plaintiff's Exhibits 52 and 52A, which constitute the report in full made by said L. T. Jessup. * * * The annual discharge of these streams is hereby found to have been as shown by the said report.

There were six years of this period in which the annual inflow amounted to only 48,000 acre-feet.

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[27] Jessup, Plaintiff's Exhibit 52, p. 45a.
[28] Jessup's Report, Table 19, p. 71.

Assuming, *arguendo,* that about 40,000 acre-feet annually were prevented from reaching the lake by reason of diversion for irrigation, the water diverted would have increased the total inflow into Malheur Lake and Mud Lake in each of those six years to about 90,000 acre-feet. At a water-surface elevation of 4,092 feet, Malheur Lake and Mud Lake would have a combined area of 33,600 acres. Adding the 90,000 acre-feet of water to these lakes would raise the surface elevation from 4,092 feet to 4,094 feet, and at the same time would increase the area 25,700 acres (from 33,600 acres to 59,300 acres) if there were no losses from evaporation, transpiration, or outflow into Harney Lake.[20]

Jessup states that the annual loss of water by evaporation and transpiration amounts to a depth of about four feet. (Plaintiff's Exhibit 52, p. 78.) Hence the loss by evaporation and transpiration alone for a water area fluctuating from 33,600 acres to 59,300 acres, or averaging 46,450 acres, would amount to about 185,000 acre-feet, or about 95,000 acre-feet more than the assumed inflow to the lake. Therefore in order to maintain a water-surface elevation between 4,092 feet and 4,094 feet would require an additional inflow of 185,000 acre-feet annually, or 137,000 acre-feet more than reached the lakes during each of the six years under consideration and 73,000 acre-feet more than the average annual inflow for the entire period of 1908–1909 to

[20] Jessup, Plaintiff's Exhibit 52, p. 45b.

1929–1930. (Plaintiff's Exhibit 52, p. 71, Table 19.) The effect of evaporation and transpiration on the fluctuation of the lake surface at any elevations above 4,092 feet would far exceed any effect due to irrigation. This is because, in view of the flat topography, an increase in the amount of water would greatly increase the area covered and hence the quantity evaporated, while only slightly increasing the depth of the water.

Jessup states that "in order to maintain a mean average elevation of this lake surface (Malheur Lake) much above 4,093 feet would require more water than has ever been available." (Plaintiff's Exhibit 52, p. 79.) Even this statement is unduly conservative. The statistics quoted show clearly that even if none of the 40,000 or 50,000 acre-feet of water was permanently lost to the lake because of diversion for irrigation, it would be impossible to maintain the lake at a water surface elevation of 4,093 feet (the mean elevation of the Neal Meander Line) except perhaps in years of extremely abundant precipitation and most favorable run-off.

The report of the United States Bureau of the Census indicates that in the Harney Basin area (5,340 square miles in extent, Plaintiff's Exhibit 62), probably not more than 110,000 acres have ever been classed as irrigated, and township plats of surveys made during the period from 1873 to 1883 showed 116,500 acres then classed as swamp, overflow, and meadow covering substantially the same areas now reported as irrigated. (Jessup, p. 72.)

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Jessup's conclusion is "* * * * This would seem to lead to the conclusion that irrigation development in this section has been largely a matter of changing the name from natural overflow land to irrigated land, and that since there has not been any great increase in the area covered with water, accordingly, there has not been a large increase in the amount of water used. That is to say, that the inflow to these lakes has not been greatly reduced by irrigation developments." (Plaintiff's Exhibit 52, pp. 72–76.)

It is perhaps true that the effect of the numerous small dams and levees has been to flood adjacent land somewhat earlier than would have been the case under natural conditions; but it is a fact well-known to irrigation engineers and recognized by this Court in *Kansas* v. *Colorado,* 206 U. S. 46, 107, that of the water diverted for irrigation a considerable proportion eventually returns to the stream as seepage. Therefore, Jessup's estimate of 40,000 to 50,000 acre-feet loss due to irrigation is extremely liberal.

The Sand Reef

The Sand Reef becomes worthy of mention because Oregon in its Counterclaim (p. 47) attributes the present plight of Malheur Lake to the breaking through of the Sand Reef. The same contention was made in *French-Glenn Live Stock Co.* v. *Springer,* 35 Or. 312. The defendant's witnesses in that case testified that the break had no effect upon Malheur Lake, and the jury so found.

No importance can be attached to the break in the Sand Reef as a contributing cause to the lack of water in Malheur and Mud Lakes.[30]

See the Special Master's Finding XXIV (S. M. R. 123–124).

Experiment with boats on the lakes demonstrates lack of capacity as navigable waters

The Special Master made the following finding with reference to boating (S. M. R. 21):

> The boating which took place in the area involved, to which much importance is attached by counsel for Oregon had no commercial aspects and is no indication of navigability; it was such as might reasonably be expected to occur in a swampy area of the character and magnitude of that here involved. The boating was quite as consistent with the want of navigability as with navigability in fact. * * * The issue of navigability was chiefly concerned with Malheur Lake although Oregon has made special request for a finding that Mud Lake was navigable. The finding above quoted, however, covers and is intended to cover the five Divisions.

He attaches to his report a condensed statement of the evidence on boating which will be found in the Supplement to his report, xv–xix. The evidence as to boating will be found in Vol. II, pp. 963–1014.

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[30] (See Index, Title H. Sand Reef—Sand Gap Vol. I, pp. 93–95; Vol. II, p. 822 *et seq.*)

All of the evidence upon boating has been digested and is printed as an Appendix to this brief, pp. 108–142.

Insofar as practicable the evidence has been arranged chronologically, with the names of the witnesses appearing alphabetically. At page 143–147 of the Appendix we have made a digest of the general conditions as to boating.

The major part of the evidence on boating relates to Malheur Lake. The boats generally used were canvas canoes drawing one or two inches of water or small homemade rowboats drawing from two to six inches of water. For the most part the boats were used by duck hunters, in the spring and fall of the year. These hunters encountered many difficulties with their boats. Even with the slight draft of the type of boat used, it was the usual thing to have to drag the boat for many yards, sometimes several hundred yards, before it would float. Tules, rising in height six, eight, ten feet, were everywhere, except in the so-called open water of Malheur Lake east of Graves' Ridge, and in numerous places were so thick as to be impenetrable. Through the tules was a labyrinth of channels, leading nowhere, and many trails, which were made by cows trampling the tules during low-water periods of the year. In and out these channels and cow trails, the boats were navigated.

The boats were customarily propelled by pushing, sometimes from within the boat by means of

a pole, sometimes from without by the boatman getting behind the boat and shoving. Hip boots apparently were the normal and perhaps a necessary part of the equipment of a boatman on Malheur Lake; certainly there was frequent need of them, for time and again the witnesses spoke of having to drag their boats through shallow water out to where they could float them, of being unable to land without getting out and walking through the mud and water, and of getting stuck and having to get out of the boat to free it. The numerous blind channels and the dense tules make it extremely easy to become lost. From many of the places no distinguishing landmarks could be seen, and the hunters in some cases were forced to mark or flag their course in order to be able to return to shore.

The main body of open water in Malheur Lake was to the east of Graves Ridge and west of Cole Island, and there only could outboard motor or other motor boats be used, though Benson did recall going once during the early spring of a high water year to the east of Pelican Island, and even then having difficulty. Near the center of this open water was its deepest point, which during ordinary stages of water was probably less than four feet deep. The water grew shallower as the shore was approached. The motorboats drew from 12 to 16 inches of water. Only four persons appear ever to have tried to use motorboats on the lake. One of these, Dr. Hibbard, said that sometimes he

was able to just reach open water after coming in by the Blitzen River. Oftentimes he would get marooned and he followed the practice of towing along a small canoe in which he would continue his journey when he could go no farther in his larger boat. He spoke of having a good deal of trouble with a weed that at certain seasons of the year covers practically all of the open water. He stated that the boat had never been very useful to him on account of the shallowness of the water. The other persons spoke of having the same difficulty with shallow water and weeds. Triska and Benson said they could only use their motorboats during high-water, mostly during April, May, June and July, and generally they would follow some slough or channel, but, notwithstanding this, sometimes they would have to get out of the boat to get it off some of the high places. The fourth person who used a motorboat, Gardner, said he had often gotten out and pulled his boat in about an inch to four inches of water.

The evidence with relation to boating on Mud Lake, the Narrows, Sand Reef Division and Harney Lake was meager. Rowboats were all that were used, and these very seldom, and those infrequent uses were by children playing around in the water near the shore, or by persons who were hunting for ducks and geese, or for bird eggs among the tules. Only three or four persons appeared ever to have been on Harney Lake. That lake was de-

scribed as a natural sump for the water of Malheur Lake, the deepest point was in its very center, the water was very shallow near the shore, and the lake had no outlet. The evidence shows that there was very little hunting in boats on any of those waters. There was apparently no trapping and no commercial boating of any kind. Shallow water and ridges impeded the use of even small rowboats in those waters as in Malheur Lake, and in many places tules and other water growth added to the difficulties.

In neither the Malheur Lake nor the other divisions was the stand of water constant. It varied from season to season and from year to year. It was said by some of the witnesses that they never saw two years alike. Such channels as existed were unconnected and unrelated. None of the waters ever have been nor can they in their natural state form a highway for commerce. Their use for even a limited field of transportation has been and must be exceptional, and confined to the irregular and short periods of temporary high water. In the most favorable periods of high water boats with a sufficient draft to be of any service cannot be used, and the difficulties encountered with even the small boats that have been used is a demonstration of the lack of capacity of the lakes for practical use as highways of commerce rather than a demonstration of navigability. This Court has said a greater capacity for practical and beneficial use in commerce

than has been shown to exist in relation to these waters is essential to establish navigability. *Oklahoma* v. *Texas*, 258 U. S. 574, 591.

Viewing these lakes for the purpose of considering their availability as highways of commerce—past, present, and future—these difficulties are encountered: Icebound from three to four months every year;[31] a dry season every year; shallow water;[32] weeds and tules which obstruct the free floatage of boats; the flat topography of the lake beds with no banks for landing; frequent dry years, during which Harney and Mud Lakes are entirely without water and Malheur Lake is reduced to a few acres of disconnected ponds;[33] impracticability of use for transportation in connection with any wagon or automobile road, and floatage of duck boats only at high water. All of these impediments to boating have existed in the past, and, due to the physical causes, will exist in the future.

The boating was exactly of the same character as is done upon every nonnavigable pond and lake in the United States frequented by duck hunters. An apt parallel description of boating on Malheur

[31] Vol. II, p. 711; Vol. II, p. 945.

[32] Vol. I, p. 622; Vol. II, pp. 815–817.

[33] Indices: Title D. Malheur Lake, 5. Water Conditions, Vol. I, p. 74; Title E. The Narrows, 2. Water Conditions, Vol. I, p. 87; Title F. Mud Lake, 1. Water Conditions, Vol. I, p. 89; Title G. Harney Lake, 3. Water Conditions, Vol. I, p. 91; Title P. Harney Valley, 2. Water Conditions, Vol. I, p. 97.

Lake is found in *Toledo Liberal Shooting Co.* v. *Erie Shooting Club,* 90 Fed. 680, *supra,* wherein the Court, at page 682, said:

> * * * It is the natural feeding ground of the duck and other water fowl. In their pursuit by canoe and flat-bottomed ducking boats the water may be navigated. That is not commerce, and proves nothing. The same test would convert every pond and swamp capable of floating a boat into a navigable stream or lake. * * *

Transportation of commodities

The Special Master stated on page 22 of his report:

> There is not a single item of evidence that any commodities were ever transported over the waters of Malheur Lake except a small quantity of hay in a single instance (Johnson, Vol. II, p. 979), and furbearing animals.

A digest of all the evidence as to traffic on the lakes, including trapping and hunting, will be found in the Appendix to this brief, at pages 148–155.

There is in the record no testimony whatever of commercial boating other than the use by several persons of boats in connection with their trapping operations. The defendant refers, under the heading of "Commerce", page 13 of its Exceptions, to four witnesses, two of whom (Dunn and King) used boats only to hunt for duck eggs, and one of whom (Johnson) said that one year he hauled some hay on a boat from one of the islands in Malheur

Lake. The fourth witness referred to was Hanley, who said that he had never known of any commerce being carried on in boats on the lakes unless a trapper had some (Vol. II, 1004). Two witnesses not referred to by the defendant were Gardner and Caldwell. Gardner said that in all his experience in that community he had never heard of anyone using the lakes to freight on; that he never saw a boat on Malheur Lake that carried freight, and that it was not practical to use the lake for that purpose (Vol. II, 1004). Caldwell said that he had never seen any boat bring supplies in over the lake (Vol. II, 1003).

Trapping

The Special Master summarizes the evidence as to trapping as follows (S. M. R. 20):

> The evidence relating to trapping discloses that (a) prior to the Executive Order there were "lots of muskrats" caught in Malheur Lake in the fall and spring but principally in the winter months, in tule areas where they *always* nested (Vol. II, pp. 715, 717, 718, 722, 998); (b) after 1908 the Government kept records of the trapping operations. Benson, United States Warden, testified that the largest number of muskrats trapped was 6,000 in 1909, and his records show that between November, 1918 and February, 1919 there was a total of 8,477 muskrats trapped in Malheur Lake. (p. 721.) Dr. Hibbard estimates the catch to be "several thousand each year." (p. 720.)

In the early days the skins brought 5¢ each. After 1909 the average price was 40¢ each and the highest $3.00 each. Heinz says he got from five cents to $1.00 apiece for the skins. (Vol. II, pp. 717, 721, 957.)

In the eighties there were only one or two trappers. (Hanley, Vol. II, p. 718.)

Prior to 1908 three trappers used home-made rowboats; after 1908, one trapper used a rowboat and another used both a rowboat and (between 1911 and 1918) a motorboat. The other trappers either waded or trapped on foot. (Vol. II, pp. 715, 967, 980, 982, 995, 997–998.)

The industry did not become important. (Gardner, Vol. II, 715.)

Dr. Hibbard testified that due to the subsidence of the water the muskrats began to disappear; that the government would not allow any one to take the few that remained; and in fact, there had not been any for a number of years (Vol. II, 719–720).

The evidence as to trapping will be found in Vol. II, pp. 714–720. A reading of this evidence shows that the summary of it by the Special Master is correct.

We have made a digest of all the evidence bearing on this question, including all evidence on "Hunting", and attach it as a part of the Appendix, pages 148–155.

The defendant states at page 36 of its brief that it has made an accurate and succinct statement of the evidence relating to trapping and the fur-bear-

ing trade, which it sets out as Appendix A to its brief, and it contends that this evidence establishes the early and long continued use of the area involved for commerce and travel in the fur-bearing trade and that it is sufficient to establish navigability in fact of the waters involved. The defendant's summary of evidence on this point and upon which it places reliance as tending to show that Malheur Lake was navigable in fact in 1859 contains testimony from 17 witnesses. Of these, only 6 (Benson, Bunyard, Farrier, Gardner, Heinz and Marshall) testify as to ever having trapped. Of these 6, only 3 (Benson, Gardner and Heinz) testified to the use of boats in connection with their trapping operations.

Of the three who testified to using boats in trapping, one, Gardner, stated the industry of trapping did not become important. He stated (Vol. I 353) that they would go in boats and sometimes the water was six inches, and sometimes three or four feet; and that they wore gum boots and pulled their boats over some of the places, that lots of times they got out and pulled the boat in about an inch, and in some places four inches of water. He trapped all over Malheur Lake, Cole Island and Pelican Island quite a lot in the early days, his first year being in the fall of 1883 (Vol. II 715).

Benson, who trapped from 1909 to about 1919, stated (Vol. II 995) that in trapping he used a homemade rowboat drawing three or four to six

inches of water. He trapped in the north part of Malheur Lake (Vol. II 720), but he never went in the area west of Doc. Graves' ridge at any time with a boat. He stated that many, many times, especially with a good load on, he would run into turf in the lake and get stuck and held up. He stated that all the other trappers used homemade boats drawing 3 or 4 to 6 inches (Vol. II 995, 996).

Heinz did most of his trapping in the fall in the northern part of Malheur Lake, mostly west of the main channel of the Silvies River. From there he would go out to the edge of the tules next to Doc. Graves' place, but would not get down to the lower part of his place. He generally used in his trapping a 14-foot rowboat in which he had installed a small motor, about one or one and a half horsepower. The boat had a propeller 11 inches high which came out from the rear of the boat. He did not know how much water the boat drew. He stated that while operating the boat the propeller would sometimes strike bottom and that once in a while they would get stuck and would have to help by poling the boat off. He stated that the boat's propeller was a weedless one, but that there were a lot of weeds in Malheur Lake, and lots of times of the year the weeds would be on top of the water and they would get tangled up in them, and would have to stop and clean them off the propeller. (Vol. II, 997, 998.)

Of the three witnesses who testified to trapping but made no reference to using boats, Bunyard said he did some trapping in the northern part of Malheur Lake in the wintertime (Vol. II, 716–7); Farrier said he trapped for three winters on Malheur Lake (Vol. II, 720); and Marshall said he trapped around Cole Island and near where he lives (Vol. II, 720). Dunn said he never trapped muskrats, but that his brother trapped on Malheur Lake and Spring Branch (Vol. II, 720).

Another one of the witnesses upon whom the defendant relies as establishing the early and long continued use of the Malheur Lake area for commerce and travel in the fur-bearing trade is Sidney Comegys. Comegys testified to having spent most of the winter 1894–5 with a relative, Harvey Reinhart, who lived near the Blitzen River where it emptied into Malheur Lake. He stated that he used to go out in a homemade boat with Reinhart trapping around the lake, but it was his recollection that they did not get very far out in the open water. He said Reinhart wore big high gum boots which he used when he had to get out to shove the boat to places where he could not get his traps. (Vol. II, 982.)

The other witnesses referred to by the defendant testified to either seeing muskrat houses, muskrats, or persons trapping muskrats. Hanley said there were only one or two trappers in the eighties. (Vol. II, 718.) None of the witnesses testified to trapping in any other lake than Malheur.

The area involved has been regarded as non-navigable from the earliest days.

On this phase of the case, the Special Master said on pages 23–24 of his report—

> The fact that the area involved is non-navigable seems to have been taken for granted from very earliest days until the enactment of the Oregon legislation of 1921.

He quotes the language used by the Secretary of Interior in three Land Decisions, first, in 1893 where the Secretary said:

> It [Lake Malheur] is a shallow lake, little more than a swamp or marsh, lying three thousand and six hundred feet above sea level.

Secondly, in 1894, when the Secretary of the Interior referred to "non-navigable Lake Malheur" and thirdly in 1901 when he quoted from a description of a township noted on the margin of a plat.

> What is usually called Malheur Lake is only a vast marsh or tule swamp with comparatively little open water * * *.

The Special Master then refers to decisions of the Supreme Court of Oregon dealing with Malheur Lake. The records in these cases were offered in evidence.

The correctness of the present and the previous meander lines of Malheur Lake have been before the Supreme Court of Oregon for judicial determination upon several different occasions. In these decisions Malheur Lake has been characterized as

a non-navigable body of water. The matter was first before that Court in *French-Glenn Live Stock Company* v. *Springer,* 35 Or. 312 (1899) and in its opinion the court, at pages 322–323, said:

> * * * The fact of the existence of Malheur Lake, a non-navigable body of water, was admitted, but there was evidence to show that it lies to the northeast of the lots of plaintiffs * * *.

This case was heard by this court on writ of error to the Supreme Court of Oregon. (See *French-Glenn Live Stock Company* v. *Springer,* 185 U. S. 47.) The opinion of this Court quotes the characterization of Malheur Lake as to non-navigability as expressed in the opinion of the Supreme Court of Oregon (p. 53).

The meander line of Malheur Lake, run in the year 1895, was before the Supreme Court of Oregon in the case of *Cawlfield* v. *Smyth,* 69 Or. 41 (1914) and in its opinion the court again characterized Malheur Lake as non-navigable.

It is worthy of note that in both of these cases the extent and the characteristics of Malheur Lake were in evidence, and from the evidence the Supreme Court of Oregon felt justified in making the observation that Malheur Lake was a non-navigable lake.

The full import of these decisions can be more readily grasped by an examination of the pleadings and records in the cases. In *French-Glenn Live Stock Company* v. *Springer, supra,* in his instruc-

tions, the trial judge frequently uses the word "unnavigable" (Vol. I, pp. 157, 158) and in one place requires the jury to find "that said lake was unnavigable." The evidence covered the condition of the lakes as far back as 1860.

The case went to the jury upon the question of lake or no lake in front of the company's property, and the jury found no lake. The company also advanced the claim that the break in the Sand Reef in 1881 reduced the water area of Malheur Lake, but other witnesses testified that there was no change, and the jury so found.

The first suggestion that the State of Oregon considered Malheur Lake to be navigable appears in the General Laws of Oregon, 1921, c. 280. (Amended Answer, p. 33.)

This law was enacted thirteen years after the establishment of the Lake Malheur Reservation. During that time the United States was in the quiet and peaceful possession of the lakes, islands, and unsurveyed lands within the Neal Meander Line, asserting ownership in itself. No claim of ownership was made by the State of Oregon.

This law, as we have pointed out in this brief, was an attempt upon the part of the State of Oregon to vest itself with the ownership of lands which belonged either to the United States or to riparian owners.

Cawlfield v. *Smyth,* 69 Or. 41, was instituted in 1910, and both the trial court and the Supreme Court proceeded upon the assumption that Mal-

heur Lake was a nonnavigable lake. The Supreme Court so describes it. The evidence in the case clearly indicates that no one had any thought that the lake was navigable. The court's instructions (Vol. I, p. 247) submit the case upon the theory that Malheur Lake was a veritable swamp without permanency of area and depending entirely upon the whims of the elements for its size and depth.

In *Bailey* v. *Malheur Irrigation Company,* 36 Or. 54, 55 (1899) the plaintiff's Bill of Complaint alleges "that Malheur Lake is a non-navigable body of water situate in said county [Harney]." See also *In re Rights to Use of Waters of Silvies River,* 115 Or. 27, 34 (1925).

While the action of the people owning land bordering on Malheur Lake and the expressions of the Supreme Court of Oregon that this lake was nonnavigable are not controlling on the issue in this case, yet when considered in the light of all the facts and circumstances in evidence they are quite persuasive that the Special Master's finding is correct.

Settlers

The Special Master found (Finding XIX, p. 113):

> During the period between 1870 and 1883 ranchmen and stockmen began wintering cattle *in the Malheur Lake Division* by driving them in the late fall or winter onto the Division to graze and feed. The cattle usually remained until the spring break-up when they were removed to the ranges for late

spring and summer grazing. (This course of husbandry is locally called "swamping."

In 1887 or 1888, one or two "settlers" (locally so-called) took possession of lands within the Division, and between that time and 1895 about twenty additional "settlers" did likewise, taking possession of knolls and/or other areas within the Division which were of slightly higher elevation than other portions therein.

The settlers maintained identifiable holdings of land (in some instances by fencing), built and furnished habitations and provided improvements and equipment used in the raising of cattle; and lived within the Division each year (in some instances with their families) from summer months or late fall until the following spring. In the spring, as stated, the cattle were removed to the ranges for spring and summer grazing, and native grasses grew and matured within the Division which these settlers upon their return in the summer or fall put up as hay for winter feed for the cattle. Others who lived outside the Division followed the same course of husbandry within the Division.

The settlers from a very early time dealt with their holdings and the improvements thereon as property, disposed of the same by deeds, conveyances, bills of sale and other modes of transfer, and they were treated as passing by will or intestacy.

This occupancy and use of the Division grew in the periods between 1895 and the

> date of the Executive Order, August 18, 1908, and the latter date and the commencement of this suit. December 1, 1930, when seventy-two tracts, varying in acreage from 4 acres to 5,504 acres, respectively (see Plaintiff's Exhibits 3 and 3a and 22), totalling about 29,406 acres out of 47,670.40 acres were enclosed by fences.

On page 2 of its brief the defendant states that this finding is correct, and it is agreed that Appendix 14 correctly shows the acreage and claimants (settlers) of these 72 tracts. (S. M. R. 115.)

III

There Were Stable Lands Constituting Islands and Promontories Within the Area Involved on February 14, 1859

The finding of the Special Master, S. M. R. 119, is as follows:

> The lands above water surface, constituting islands and promontories totaling 7991.6 acres within the [*Malheur Lake*] Division are made up of the following:

	Acres
(a) Pelican Island	840.0
(b) Cole Island	350.0
(c) All other Islands	4,921.6
(d) Promontories	1,880.0
Total	7,991.6

The Special Master states on p. 25 of his report:

> The evidence shows that the lands above a water surface elevation of 4,093 comprised 7,991.6 acres in Malheur Lake Division, 21.2

acres in the Narrows, 88 acres in the Mud Lake and 1,227 in the Sand Reef (see finding XXII, infra). [Total acres 9,327.8.]

It has been impossible to furnish a similar table in respect of Harney Lake because no survey nor measurements for the purpose are available. See finding XXII, infra.

The acreages above 4,093 are not generally compact bodies although there are two well-known islands, Pelican Island, 840 acres, and Cole Island, 350 acres, within the Malheur Lake Division. Other islands, unnamed and unsurveyed within that Division aggregate 4,921.6 acres. The promontories therein aggregate 1,880 acres: thus giving the total 7,991.6 acres above 4,093.

These islands and promontories are stable lands, and the Conclusions of Law declare them to be the property of the United States (in any and all events).

We submit that the Special Master's finding is fully supported by the evidence.

Pelican Island, the largest island in Malheur Division, has an area of 840 acres when the water reaches an elevation of 4,093 feet (Vol. I, 135). All of the witnesses agree that this Island has never been completely submerged even in the extreme high water years (Vol. I, 68, 283, 284, 285, 286, 287, 290, 291, 292).

Fitzgerald was there in June 1876, and says that the Island had every appearance at that time of being permanent (Vol. I, 279).

Greasewood has grown on the Island since the early days Vol. I, 67, 279, 280, 281, 282, 282–283, 283).

Bendire visited this Island and other islands in Malheur Lake in April 1875 and again in the spring of 1876 and refers to them in his notes upon bird life. (Plaintiff's Exhibits 42 and 43, Vol. II, 751, 752.) At the present time the Island is covered with greasewood; some of which reaches a height of 8 feet. (Pecore Vol. I, p. 283.) This plant is killed by flooding, usually within a year or less. (Jessup, Plaintiff's Exhibit 52, p. 41.)

The second island in size is Cole Island. This Island which includes Dunn Island, contains 350 acres when the water reaches an elevation 4,093 feet. (Pecore Vol. I, pp. 135, 293.) Witnesses familiar with the country in the early days have never seen Cole Island completely submerged (Vol. I, 71, 303, 304, 305, 306, 308, 309, 310, 311, 312, 313, 314).

Cole had a house on the Island and lived there with his family. (Thomas T. Dunn, Vol. I, p. 311.) Hay has been cut on that Island in season for many years. (Vol. I, 299, 300, 301, 308, 309, 313.)

Small greasewood grows on the Island (Vol. I, 299, 300, 301).

The Island has always been regarded by the settlers as a permanent body of land (Vol. I, 294–295, 295, 297, 298, 308, 313).

There are numerous smaller islands within the Neal Line, especially in the western part of the

Malheur Division. The total area of all exposed lands, when the water reaches an elevation of 4,093 feet, is 8,000 acres, or twelve and one-half square miles. (Pecore, Vol. I, pp. 135, 315.) This area includes Pelican and Cole Islands.

Computations by Pecore show there are islands having areas of 164, 140, 116, 56, 70, 440, 245, and 52 acres, respectively, when the water stands at 4,093 feet. (Pecore, Vol. I, pp. 315–316.)

These islands have been variously estimated from one-half an acre to two hundred acres or more in area by many witnesses familiar with them (Vol. I, 316, 317–318, 318, 319, 320, 322–323, 325–326, 326, 327–328, 329–330, 330–331, 331–332.

As early as the eighties and nineties various persons had cabins on these islands in which they lived (Vol. I, 317, 320, 322, 323).

The defendant argues that it is not true that there were stable lands constituting islands and promontories within the area involved on February 14, 1859, because, as it contends (its brief, p. 68–9), "the waters in the spring seasons of high water invariably rose high enough to cover the so-called islands with the standing water of the lake, which rose with freshets in the Silvies and Blitzen and other tributaries flowing into the lake as well as the run off from the lower foothills" and because "the water, except in the dry seasons of 1888, 1889, 1919, 1930, 1931, 1932, was invariably high enough to produce a crop of wild hay." We think it clear that seasonal floods of short duration, or a tempo-

rary stand of water will not convert stable lands into lake bed lands. The spring seasons of high water, forming the basis of the defendant's argument, lasted only a small part of the year, and, instead of transforming these islands into beds of navigable waters, resulted in beneficially irrigating them.

IV

The Executive Order of August 18, 1908, Establishing a Reserve for Birds, Was Valid and Withdrew from Entry the Lands Embraced Therein

The Special Master held (S. M. R. 61, 62) that the Executive Order establishing Lake Malheur Reservation for birds was valid, and that it had the effect of withdrawing from disposal the public lands within the Reservation. Therefore, the school lands, of which the surveys were not approved until after the date of the Executive Order, did not pass as school lands. This applies to 62.76 acres of the Sand Reef Division, 20.27 acres and 140.60 acres of the Harney Lake Division. (S. M. R. 71 and 110.)

The Special Master was clearly right.

The power of the President to set apart public lands for a bird reserve was settled by the case of *United States* v. *Midwest Oil Co.*, 236 U. S. 459, 469 *et seq.*

Where the lands have been withdrawn from entry, if the survey of school lands had not been

approved prior to the withdrawal, the title did not pass to the State. *United States* v. *Morrison*, 240 U. S. 192, 210.

V

The Statutes of the Oregon Legislature Pleaded in its Amended Answer and Counterclaim do not Give Oregon Title to the Lake Beds or Any Part Thereof

The Special Master was clearly right in holding that the Statutes of Oregon enacted in 1917, 1921, 1923, and 1931 cannot divest the United States of the title to the lake beds. (S. M. R. 55.) These acts are set out in full in the Amended Answer pp. 32–41 and the Supplement to the Special Master's Report vi to xiv.

The Acts of 1917, 1923 and 1931 have no bearing upon the issues in this case. The Act of 1921, ch. 280, provides that:

> Section 1. Any and all lakes wholly or partly within the state of Oregon which have been meandered by the United States surveys, are hereby declared to be navigable and public waters, and the waters thereof are hereby declared to be of public character, and the title to the bed and land thereunder, including the shore or space between ordinary high and low water marks and between ordinary high and low water lines, which are not included in the valid terms of a grant or conveyance from the state of Oregon, is hereby declared to be in the state of

> Oregon, and the state of Oregon hereby asserts and declares its sovereignty over the same and its ownership thereof; * * *

The statute does not mention *non-navigable lakes* but *"any and all lakes* * * * which have been meandered by the United States surveys." In this suit Oregon claims that the statute applies to non-navigable lakes. As Oregon upon its admission as a State became the owner of all navigable lakes within the State, the statute was not needed as to such lakes. The law is settled, however, that the beds of all non-navigable lakes remain the property of the United States upon the admission of a State to the Union.

The lakes in question being non-navigable, title to the beds thereof is determined as of the date of statehood and the title remained in the United States upon the admission of Oregon into the Union. The act in question undertakes to fix a standard of navigability contrary to the law as declared by this Court, and the State of Oregon claims that by this legislation it has divested the title of the United States to its property. Oregon seeks by this legislation to appropriate the beds of all non-navigable lakes in the State, *"which have been meandered by the United States surveys"* by declaring them to be "navigable and public waters."

This Act was passed more than 60 years after Oregon became a State. The law is settled that state laws cannot affect titles which are vested in the United States.

The State of Utah in 1927 passed an act declaring the Colorado and Green Rivers in Utah to be "navigable streams." Laws of Utah, 1927, p. 8. In considering the effect of this Act, this Court in *United States* v. *Utah, supra* (p. 75) said:

> State laws cannot affect titles vested in the United States.

In *Brewer Oil Co.* v. *United States, supra* (p. 88), this Court said:

> It is not for a State by courts or legislature, in dealing with the general subject of beds of streams, to adopt a retroactive rule for determining navigability which would destroy a title already accrued under federal law and grant or would enlarge what actually passed to the State, at the time of her admission, under the constitutional rule of equality here invoked.

In *Oklahoma* v. *Texas, supra* (p. 591), this Court after referring to the fact that the Supreme Court of Oklahoma had adjudged the river in question navigable in fact, said:

> We conclude that no part of the river within Oklahoma is navigable and therefore that the title to the bed did not pass to the State on its admission into the Union. If the State has a lawful claim to any part of the bed, it is only such as may be incidental to its ownership of riparian lands on the northerly bank. And so of the grantees and licensees of the State.

Pursuant to the requirements of the Act of Admission, c. 33, 11 Stat. 383, Oregon ordained that it would "never interfere with the primary disposal of the soil within the same by the United States." In commenting on this provision, this Court in *Gibson* v. *Chouteau,* 13 Wall. 92, 99, said:

> With respect to the public domain, the Constitution vests in Congress the power of disposition and of making all needful rules and regulations. That power is subject to no limitations. Congress has the absolute right to prescribe the times, the conditions, and the mode of transferring this property, or any part of it, and to designate the persons to whom the transfer shall be made. No State legislation can interfere with this right or embarrass its exercise; and to prevent the possibility of any attempted interference with it, a provision has been usually inserted in the compacts by which new States have been admitted into the Union, that such interference with the primary disposal of the soil of the United States shall never be made.

VI

Is the Rule of the Common Law as Declared in Hardin v. Jordan Applicable to Lakes of the Size of Malheur and Harney Lakes?

Oregon in its exceptions and brief, pages 101 to 104 takes the position that the size of the lakes in question is so great in extent that they should be held exceptions in any event to the common law

rule. The Special Master (S. M. R. 37) after referring to cases dealing with this question said: "I do not assume to reach any conclusion on this point but merely call it to the attention of the Court."

As the determination of this question naturally affects the rights of the upland proprietors and the settlers in the beds of these two lakes, we think the Special Master was right in not deciding this question, because decision of this question is not necessary to the settlement of the issues in this case between the United States and Oregon.

VII

If Fractional Sections of School Lands Border upon a Meandered Lake and the State Uses the Deficiency Within the Meandered Lake as Base for Lieu Lands, the State is not also Entitled to the Benefit of the Rule of Hardin v. Jordan

The Special Master found that Oregon used as base certain lands within the Meander Line Boundary constituting deficiencies in three Sections 36. The amount of base thus taken is set out on pp. 54 and 87 of his report. At the commencement of this suit Oregon owned 172.63 acres of school land bordering on the Meander Line Boundary of the Harney Lake Division and this acreage is a part of the same section in respect whereof Oregon took the above 67.37 acres as base for lieu lands.

See inset facing S. M. R. p. 70.

We submit that the Special Master correctly concluded that (p. 55):

> Oregon thereby gave a construction to the Act of Admission and of her rights thereunder (the right to use base in the meandered area for lieu lands to be elsewhere selected) and cannot now claim that the fraction of the same section bordering on the meander line gave rise to rights under *Hardin* v. *Jordan.*

The idea of enjoying the deficiency within the meandered area and the right to go from the meandered line to the center of the lake are inconsistent. (S. M. R. p. 53.)

VIII

Do School Lands Bordering on a Meander Line Granted Oregon Under the Act of Admission Come Within the Rule of Hardin v. Jordan?

As the State of Oregon does not own any school lands nor indemnity lands (except one parcel of school lands of 172.63 acres in the Harney Lake Division, which is discussed on page 89 of this brief) it is not necessary to determine in this suit whether school and indemnity lands are on the same footing as patented lands in reference to riparian rights in the bed of the lakes.

The Special Master discusses this question on page 52 of his report and reaches the conclusion that they do not come within the rule laid down in

Hardin v. *Jordan*. In his proposed decree he says, page 137 (17):

> The apportionment of the beds of the meandered areas amongst upland proprietors and the rights of persons not parties to this suit are not determined here.

IX

(1) Is the Common Law in Respect of the Effect of Conveyances of Lands Bordering on a Meandered Lake (i. e., that the Grantee Takes to the Center of a Lake) in Force in Oregon, or Does the Local Law Provide that the Grantee Takes only to the Water's Edge.

The Special Master found that the common law of England is the law of Oregon. He found that (S. M. R. 33, 76):

> The organic law of the provisional government of Oregon passed June 27, 1844, contained the following provision:
>
> * * * the common law of England and principles of equity, not modified by the statutes of Iowa or of this government, and not incompatible with its principles, shall constitute a part of the law of this land. (Laws of Oregon, 1843–49, p. 100.)
>
> The foregoing law was in force when the Constitution of Oregon adopted September 18, 1857, became effective February 14, 1859 (128 Or. 510, 275 Pac. 53, c. 2. middle) and has so remained to this time. Article 18 of

the Constitution as adopted and still in force, provides:

> "All laws in force in the territory of Oregon when this Constitution takes effect, and consistent therewith, shall continue in force until altered or repealed."

In *Hardin* v. *Jordan,* 140 U. S. 371, it was held that by the common law the grantee takes to the center of a nonnavigable lake.

In *Kern* v. *Calumet Canal Co.,* 190 U. S. 452, 459, it was said that the common law as understood by this Court as to the effect of conveyances bordering on a nonnavigable lake was that the grantee takes to the center of the lake.

The United States does not think it necessary in this case to determine whether there has been a departure in Oregon from the common law as announced in *Hardin* v. *Jordan.* (See plaintiff's exception VIII.) The effect of the patents to land adjacent to the Neal lines is a matter only between the United States and its patentees. The State of Oregon would have no interest in the Malheur Lake Division, whether the patent stops at the water's edge or goes to the center of the lake. A ruling on this question is not necessary in order to determine that Oregon has no title under either its navigability or abandonment theories. If, however, this Court should find it necessary or appropriate to pass upon this question, we submit that the Special Master's ruling is correct.

The defendant, however, challenges the ruling, and asserts that the common law, as to the effect of grants and patents, has been changed by judicial decision and statute.

Defendant asserts (Defts. brief 87) "The Special Master has totally misconceived the law of Oregon. He has overlooked the phrase qualifying the adoption of the common law to only so much thereof as is 'not incompatible with its (the government of Oregon) principles.' He has failed to read correctly the Oregon cases."

The Special Master gave careful consideration (S. M. R. 35) to the cases cited by plaintiff, including the following (See D. B. 95–100): *French-Glenn Livestock Co.* v. *Springer,* 35 Or. 312 (1899), affirmed, 185 U. S. 47; *Cawlfield* v. *Smyth,* 69 Or. 41 (1914); *Gillihan* v. *Cieloha,* 74 Or. 462 (1915); *Hanson* v. *Thornton,* 91 Or. 585 (1919); and found that none of these cases indicates any departure from the common law rule. We believe this ruling of the Special Master is proper and well founded.

The cases which the defendant cites did not involve or discuss the question as to whether the owner of uplands takes to the middle of a non-navigable lake. The question involved in those cases was as to whether the owner of the uplands acquired title to land between the original line and the water's edge, which had become bare by accretion or a gradual and imperceptible recession of the water. It was held that the owner does be-

come entitled to such land by accretion or reliction.[34] Defendant argues, however (Defendant's brief, 94) that if the common-law rule were applicable in Oregon, whereby the owner of the uplands takes to the center of the lake, the question of whether lands are added to the uplands by reliction would have been wholly immaterial. Defendant therefore concludes that since the court dealt with an issue of reliction, it in effect denied the applicability of the common-law rule. Plaintiff submits that that is not a fair inference from the cases cited. For instance, in *Cawlfield* v. *Smyth, supra,* the court stated that a grantee was entitled to take *"at least"* to the actual margin of the water. (69 Or. 46, 49.) In *French-Glenn Livestock Co.* v. *Springer,* 35 Or. at 319, it was stated that—

> It is a question of no moment to the parties in the present controversy whether the shore or upland owner takes to the water's edge or to the center of a non-navigable lake, or what title, if any, has been acquired by reason of such ownership, without reservation in the muniments of title to the land under the water of the lake, as, in any event,

[34] Except in the case of *French-Glenn Livestock Co.* v. *Springer, supra,* in which it was held that there was not at the time of the survey nor since any lake abutting on the patented lots. And hence no question as to accretion by reliction. Similarly, in the case at bar, the United States contends that these lakes never permanently rose as far as the Neal lines. That question, however, is one between the United States and its patentees.

> the owner is entitled to all land between the original line and the water's edge, which shall have become bare by accretion or a gradual and imperceptible recession of the water, not extending beyond the center of the lake. * * *

In other words the court does not presume to pass upon the applicability of the common law rule, since that was unnecessary for a determination of the issues in the particular case.

In neither of these cases nor in any of the other cases cited by defendant did the court hold that the common law rule was not applicable in Oregon. Hence defendant has shown no authority for the contention that the common law, in this regard, has been changed by judicial decision.

The letter of the Attorney General of Oregon dated January 14, 1920, addressed to the Committee on Commerce and Navigation of the Legislature of Oregon and attached to defendant's brief as Appendix G, p. 43, states:

> Under the provisions of Chapters 145 and 373 General Laws of Oregon, 1919, we expect and will attempt to establish the title of the State of Oregon to the lands under the waters of Malheur and Silver Lake and probably other lakes as we secure the facts. However, like all litigation, the outcome depends upon the vision and broad mindedness of the judiciary, and the view which the individual members of the court take on public and private questions.

And he further states in that connection:

> The question of the title of lake beds in Oregon, except that of lakes which are navigable in the broadest commercial sense, is an open question and the supreme court of this state has up to date found it unnecessary to determine the question. Whether the title to a non-navigable lake, or a lake which is navigable in a more restricted sense than that used in the federal cases, shall be determined in this state to be in the state or in the upland owners to the center thereof, is a matter of local law for each state to determine, either through legislation or judicial decision.

This letter confirms the Master's conclusion that the rule of the common law that the title of an upland owner on a non-navigable lake goes to the center of the lake, had not been changed by judicial decision nor by legislation in Oregon as late as January 14, 1920. All the patents had been issued prior thereto.

The defendant further contends that the statutes enacted in 1917, 1921, 1926, and 1931 and set out in the Amended Answer changed the common law of Oregon and that these statutes have the effect of giving Oregon title to the lake-beds opposite any patents granted by the United States to uplands bordering on the lakes. The statutes were enacted subsequent to any patent involved in this suit. We think it clear that these statutes cannot have a retroactive effect and divest the title to the bed of the

lakes which remained in the United States upon the admission of Oregon into the Union, nor any title which vested in its patentees prior to the enactment of these statutes.

The effect of these statutes has been discussed elsewhere in this brief.

The statement of this Court in *Brewer Oil Co.* v. *United States, supra,* p. 88, would seem to settle this question conclusively against the State's contention:

> It is not for a State by courts or legislature, in dealing with the general subject of beds of streams, to adopt a retroactive rule for determining navigability which would destroy a title already accrued under federal law and grant or would enlarge what actually passed to the State, at the time of her admission, under the constitutional rule of equality here invoked.

X

The United States, When it Patented Uplands Bordering on the Lakes, Did Not Abandon to the State of Oregon the Bed of the Lake to the Middle Thereof Opposite Such Uplands

The defendant contends that "the title to the bed of the lake has been abandoned by the government." (Defendants brief 129.)

On this question the Special Master found as follows (Finding XXIII, S. M. R. 121):

> It is not true that by reason of the issuance of patents and/or grants of lands bor-

> dering on the Meander Line Boundary without any reservation of title to land or water within the Meander Line Boundary or by reason of any other fact or circumstance whatever, the United States *as matter of intention or fact* abandoned claim to any land or water within the Meander Line Boundary, but such abandonment, if it ever occurred, arose out of rules of law, if such rules of law existed, and not otherwise. (Italics supplied.)

Having held that there was no actual intention on the part of the United States to abandon title to the land within the Meander Line Boundary, the Special Master reviewed the law applicable to this question. His discussion of the authorities, which appears at pages 37 to 52 of his Report, is so comprehensive that we do not consider it necessary to review them again here. He concluded that this Court has never passed upon the question whether title to land underlying non-navigable waters passes to the State when the United States conveys the uplands to a third party and the local law provides that the grantee takes only to the water's edge. This conclusion seems clearly correct. In *Whitaker* v. *McBride,* 197 U. S. 510, 515, this Court said:

> * * * As we reserve the rights of the United States we do not even impliedly sanction the intimation contained in the opinion of the court below that under the decision in *Hardin* v. *Jordan,* 140 U. S. 371, although,

> on non-navigable waters, riparian rights were not conferred by the state law, nevertheless the land beyond the banks passed to the State in virtue of the patents of the United States to the lot owners. Upon that question we express no opinion.

Again, in *Marshall Dental Co.* v. *Iowa,* 226 U. S. 460, it was found unnecessary to decide the question, the Court saying (p. 461):

> * * * By the law of Iowa the riparian owners took title only to the water's edge, and therefore the grants of the adjoining land by the United States did not convey the land under the lake. *Hardin* v. *Jordan,* 140 U. S. 371. *Hardin* v. *Shedd,* 190 U. S. 508. *Whitaker* v. *McBride,* 197 U. S. 510, 512. It follows that the bed of the lake either still belongs to the United States or must be held to have passed to the State.
>
> The question as to the title to the bed is treated as open in *Hardin* v. *Shedd,* 190 U. S. 508, 519, and *Whitaker* v. *McBride,* 197 U. S. 510, 515, and there is no need to decide it now. * * *

As stated in the foregoing opinion, the question was left open in *Hardin* v. *Shedd, supra,* although the Supreme Court of Illinois had held the title to be in the State. Justice White, however, in a dissenting opinion, made the following statement (190 U. S. 508, 522):

> Now, as the settled rule in Illinois is that under the principles of conveyancing pre-

> vailing in that State no title to the bed of a lake passes to the patentees of the United States by the sale of border lots, I do not perceive how the United States has been devested of its title to the bed of Wolf Lake. To say that, although on the principles of conveyancing under the local law, the bed did not pass, nevertheless, because the United States sold the border lots, the State of Illinois became the owner of the bed of the lake, is, as I understand it, to declare that it is in the power of the State of Illinois to appropriate the property of the United States.

It appears to be the contention of the defendant that the local law governing the effect of patents by the United States is evidenced by the statutes of Oregon set forth in its answer. These statutes have already been discussed (*supra*, pp. 85–88), and we submit that whatever their effect might be with regard to conveyances taking place after their enactment, they cannot affect the title of the United States in respect of the lake bed opposite uplands patented prior to their enactment.

Nor is it necessary to decide whether local law effective at the time of a conveyance by the United States of riparian land without express reservation of title to the lake bed could operate to pass title to the lake bed to the State, for it has not been shown that the Oregon law, statutory or otherwise, at the time of the patents here involved, purported

to vest title in the State under those circumstances. It is not sufficient for the defendant to say that under its law a conveyance of riparian land passes title only to the water's edge; it must go further and show that not only does the grantee take simply to the water's edge; but that the State takes all land below the meander line. This, we submit, it has failed to do. And, it not having been shown that there was any such rule of law in Oregon when the United States granted the patents, there is no ground for presuming consent by the United States that its patents should be governed by such a rule.

In *Oklahoma* v. *Texas, supra,* pp. 594–595, this Court said:

> Where the United States owns the bed of a non-navigable stream and the upland on one or both sides, it, of course, is free when disposing of the upland to retain all or any part of the river bed; and whether in any particular instance it has done so is essentially a question of what it intended. * * *

There is nothing here to indicate that the United States did not intend to retain the lake bed opposite the patented land (assuming that the patents did not, under local law, cover all land to the middle of the lake), and we submit that the Special Master was correct in concluding that the United States did not, either in fact or in law, abandon title to the property now in litigation.

XI

The Upland Proprietors and the Settlers Within the Meander Line Boundary Are Not Necessary or Proper Parties.

The defendant in its brief (p. 1) states that:

> The State of Oregon concedes the jurisdiction of the Court over the parties and the subject matter.

Neither in its answer nor counterclaim (which was in effect a cross action) did it suggest that the patentees and settlers were proper or necessary parties. In its brief it contends that they should be made parties. It has made no motion to this effect. We contend that they are not necessary or proper parties; that the issues between the United States and the State of Oregon can be determined without their presence.

The defendant relies upon *Oklahoma* v. *Texas, supra,* to sustain its contention that the private claimants should be made parties to this suit. Defendant's brief pp. 7 and 202.

That was originally a suit brought by one State against another and thereafter the United States intervened. On motion of the United States, supported by the States of Oklahoma and Texas, this Court appointed a receiver to take possession of the part of the river bed between the medial line and a line on the south bank of the river and to control or conduct all necessary oil and gas operations therein, it appearing that many persons were pro-

ceeding to drill for and extract oil and gas therefrom, while both States claimed title thereto and the United States was disputing the claims of both States.

The order appointing the receiver provided for holding the net proceeds of the oil and gas to be awarded to the rightful claimant, and it also provided for intervention in the suit, so that all claims to the property and proceeds in the receiver's hands could be asserted. Numerous parties intervened asserting rights to the property and proceeds of the oil and gas taken therefrom in the receiver's possession.

This Court said: (p. 581)

> In its first stage this was a suit by one State against another. When the United States intervened it became also a suit by the United States against those States. In its enlarged phase it presents in appropriate form the conflicting claims of the two States and the United States to the river bed and calls for their adjudication. The other claims, being for particular tracts and funds in the receiver's possession and exclusively under our control, are brought before us because no other court lawfully can interfere with or disturb that possession or control. It long has been settled that claims to property or funds of which a court has taken possession and control through a receiver or like officer may be dealt with as ancillary to the suit wherein the possession is taken and

> the control exercised—and this although independent suits to enforce the claims could not be entertained in that court.

We submit that case does not support the defendant's contention. In the instant case there is no property in the possession of a receiver. The United States has not consented to be sued by the riparian owners or the settlers.

If the bed of the lakes opposite the granted lands went to the patentees of the United States, then Oregon has no interest in these lake-bed lands. Or if the patentees did not get title to the beds because the meander land was not a correct line or because the common law principle does not apply to lakes the size of Malheur and Harney Lakes, then the title remained in the United States and Oregon would have no title to said lake beds opposite said patented lands.

If the bed of the lakes opposite the patented lands went to the patentees, a serious question is presented to determine the rights of the United States and the patentees as to the proportion thereof, because of the existence of stable lands or islands aggregating over 9,000 acres, of which 7,991 acres are in Malheur Lake, and then too 29,406 acres are now occupied by settlers and enclosed by fences in the bed of Malheur Lake, who claim title adverse to the United States and to the patentees.

There may arise a serious controversy as to the rights acquired by the patentees and also as to what

rights, if any, the settlers have acquired as against the United States. There will doubtless arise also controversy between the patentees and the settlers, which can be settled in the State courts or in the Federal District Court if the jurisdictional facts are present, but the defendant has no interest in these matters nor any right to have them injected into this suit, and, besides, this Court has no original jurisdiction of such matters.

XII

The United States is Entitled to a Decree Substantially as Recommended by the Special Master.

The Special Master attaches to his report (pages 132 to 137) the form of a decree which he recommends:

The United States asserted ownership to all the area in question on the ground that the lakes are not and never have been navigable. The State of Oregon denied the claim of the United States that the lakes were non-navigable and asserted that it was the owner of the lake beds because, it alleged, they were navigable waters when Oregon was admitted into the Union, and it further alleged, as the basis for its cross-action, that even if the lakes were non-navigable when the State was admitted, the title was vested in the State by virtue of the decisions and legislation of the State. We therefore, have both parties asserting ownership to the area in question, the United States by its original bill

and the State by its cross bill, and it is proper that the decree should adjudicate the rights of the parties. It is admitted that certain transfers had been made by the United States prior to the institution of the suit and as the State of Oregon has no claim to the interests acquired by these conveyances, the decree should provide as recommended by the Special Master.

In *United States* v. *Utah, supra,* the suit was brought to quiet title to lands constituting the beds of portions of certain rivers within the State of Utah, the United States claiming that it was the owner of the river beds with the exception of lands granted by it, it being alleged that the rivers were not and never had been navigable. Utah denied the ownership of the United States, claiming that the rivers were navigable, when it was admitted to the Union, and that it, therefore, owned the beds in question. There was no cross bill filed by Utah.

This Court found certain of the rivers were navigable and others non-navigable and the Court entered a decree adjudging that the title to the beds of the portions of each of the rivers found non-navigable (p. 803)—

> is vested in the United States of America, except as to lands heretofore granted, and the State of Utah is forever enjoined from asserting any estate, right, title, or interest in and to said bed of said last-mentioned stretch of river or in and to any part of said last-mentioned bed, adverse to the United

States of America, or its grantees, and from in any manner disturbing or interfering with the possession, use, and enjoyment thereof, by the United States of America, or its grantees.

The proposed decree is modeled upon that in the *Utah* case and the United States contends that a decree should be entered substantially as recommended by the Special Master.

CONCLUSION

The United States submits that the exceptions filed by the State of Oregon should be overruled and that a decree should be entered substantially in the form proposed by the Special Master.

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MARCH 1935.

APPENDIX

BOATING

1. Boating Generally

Malheur Lake

EARLY DAYS AND GENERAL STATEMENTS

Anderson, Edward, 50 years of age, residing at Burns, Oregon; first came to Harney Valley in 1888 and has lived there practically all the time since then (Vol. I, 11).

Never used a boat on the lake (Vol. II, 969).

Baker, Emil, 51 years of age, residing about eight miles from Burns, Oregon; lived in Harney Valley practically all his life (Vol. I, 11).

Never used a boat on Malheur Lake; had seen the Game Warden there in a boat (Vol. II, 968).

Baker, James Thomas, 65 years of age, residing about six miles northeast of Burns, Oregon; first came to Harney Valley in 1878; stayed there until 1880; returned again in 1885 (Vol. I, 12).

Never operated a boat on Malheur Lake; only saw a boat there once, a little home-made flat-bottomed rowboat (Vol. II, 968).

Biggs, John W., 61 years of age, residing at Burns, Oregon; lawyer by profession; has been living in Harney Valley since January 1893 (Vol. I, 13).

Recalled going duck hunting three different times in a boat. Two boats used by him were

home-made wooden boats; the other a canvas boat. Rowed around through channels among the tules principally (Vol. II. 969).

Donegan, James J., 59 years of age; lived in Harney County since 1889 (Vol. I, 28).

Never was out in Malheur Lake in a boat at any time (Vol. II, 969).

Gardner, John, 77 years of age, living in Burns, Oregon; came to Harney Valley in June 1879; first saw Malheur Lake in June 1878 (Vol. I, 33, 34).

At times used a boat in trapping; sometimes the water was six inches and sometimes three or four feet deep; had gum boots and pulled the boats over some of the places; probably would have a foot and a half of mud and water; generally made an oar eight feet long and would stick it down half way and there would be mud and water on the oar; many times got out and pulled the boat in an inch to four inches of water in high places. Had seen other fellows hunting in boats. In the tules, dodging around, a boat would not be seen for two or three days, and then suddenly one would come into sight; would follow an open channel and then come to the tules, and then come to a place where the boat had to be pushed through, and then get into another opening (Vol. II, 965–966).

Hamilton, Lester Marion, 50 years of age, residing about three miles east of Burns, Oregon; lived in Harney Valley since 1893; lived near the Narrows from January 1894 to May 1897 (Vol. I, 35).

Did not think people used boats to hunt very much on Malheur Lake (Vol. II, 969). Almost every fall from 1908 up to quite a recent time he has gone duck hunting in and about Malheur Lake, and he did not use a boat (Vol. II, 716).

Hibbard, Dr. Llewellyn Eugene, 68 years of age; lived in vicinity of Burns, Oregon, for 31 years; dentist by profession (Vol. I, 38).

Never got in a boat at the Narrows and went up to Malheur Lake or came down, either one; tried to come down once and got in the tules so bad that he could not find any good way of coming, and gave it up. Tried to go down on skates but the tules lopped in. Did not find any waterway that could take his boat along. Attempted to find the channel; got into innumerable sloughs that petered out. If there was an open waterway he did not find it (Vol. II, 970).

Howser, Thomas George, 60 years of age, residing a mile from the Town of Harney, fourteen miles from Burns, Oregon. Came to Harney Valley in 1876 at the age of five (Vol. I, 40).

Went hunting in a small flat-bottom homemade rowboat in July or Aug., about 1891; did not know whether it would be called Malheur Lake proper; there were tule beds and islands all through it; never got through the tules at any time; they grew pretty close together; there was an open space, and then more open water, and then more tules. They put the boat in the water on the main Silvies River just a little above Lawen. Hardly think that they could have gotten boat into the lake from where they started if they had not gone down the river or slough. Away from the slough or river the slope is very gradual. At the edge of the water it would be an inch or two deep and you would have to get out a quarter of a mile anyhow from the bank to get about a foot of water. Made only one trip in a boat. Went duck hunting afterward but did not go

in a boat. Said it was easier to go duck hunting without taking a boat. It was necessary to drag the boat a good deal of the time coming back on the trip spoken of. The depth of the water in some places was not as much as six or eight inches; very shallow in some places (Vol. II, 964).

King, Will Y., 72 years old, County Treasurer of Harney County at the time of giving his testimony; first came to Harney Valley in 1879 (Vol. I, 44).

We went out in a boat in Malheur Lake once; put the boat in at the Narrows. There was not much water or current coming through the Narrows at the time. Used a pole to push the boat around. It was just a small homemade flat-bottomed skiff (Vol. II, 966).

Marshall, Alfred L., 60 years of age, residing at Voltage, Oregon, south of Malheur Lake; first came to Harney County in 1884; owns property in vicinity of Malheur Lake (Vol. I, 46).

Never saw the Game Warden go around in his boat north of the south part of the grain field by his place within the Neal meander line, because it was too shallow (Vol. II, 970).

Ortego, Prim, 68 years of age; came to Harney Valley in 1873 (Vol. I, 48).

Never tried to operate a boat on Malheur Lake; once saw a boat at the Narrows and once at Springer's (Vol. II, 966).

Riddle, Tobias Stilley, 82 years of age; came to Harney Valley in 1872; next year, in December of 1873, was down to Malheur Lake and crossed it, riding his own stock (Vol. I, 51).

Never saw a boat on Malheur Lake (Vol. II, 967).

Sizemore, George S., 70 years of age; been a resi-

dent of Harney County over forty-five years; at the time of giving his testimony was District Attorney for Harney County; first became acquainted with Malheur Lake in 1886 (Vol. I, 52).

Tried to go hunting in boats but never had much success, either had to push or pull the boat. Said it wasn't much of a pleasure with a boat down in Malheur Lake where he was hunting (Vol. II, 970).

Smyth, Darius Hynson, 87 years of age; came to Oregon and through Harney Valley in 1853; at that time passed on south side of both Malheur and Harney Lakes (Vol. I, 53). Came back in 1872 to Harney Valley to live. Now lives in Happy Valley (Vol. I, 53, 54).

Never saw a boat on Malheur Lake; saw one little skiff at the Narrows bridge. That was the only thing that he ever saw on the lake in his whole time there and he has been there in all times of the year, too (Vol. II, 966).

Thompson, Orin Eugene, 63 years of age; for the last twenty-five or thirty years has lived on the east side of Malheur Lake; first came to Harney Valley in 1887 (Vol. I, 57).

Was never over Malheur Lake in a rowboat; had been out to Pelican Island in a boat (Vol. II, 969).

Turner, James A. 63 years of age; lived in Harney Valley since 1891; formerly had a place near the lake (Vol. I, 58).

Was out in Malheur Lake in a boat but not to the place where he lived for a year and a half; went out in the fall and drove in with a wagon and team (Vol. II, 970).

Vickers, Thomas J., 76 years of age; has lived at Harney City since 1879 (Vol. I, 58).

Never was on Malheur Lake in a boat. In connection with cutting hay loaded a mower into a scow made of heavy boards and planks. Never used the scow in the lake, just pulled it across the sloughs; had taken it out into the tules three miles but was on the ground the biggest part of the time; had to float it a little while and then pull it when it struck the ground (Vol. II, 964, 965).

Whiting, George E., 58 years old, residing three miles from the Town of Burns; came to Harney Valley with his parents in 1874 (Vol. I, 60).

Was out on the north side of Malheur Lake east of the Narrows in a boat one time in the spring. The boat was a skiff-rowboat, a flatbottomed home-made affair; used oars and poles. When they got to the tules they would part them and pull through (Vol. II, 967).

Whiting, Schuyler, 63 years of age, residing near Burns, Oregon; first came to Harney County in 1874; near the lakes off and on from 1879 until about 1885 (Vol. I, 61).

Was never on Malheur Lake in a boat; does not remember ever having seen any boats on the lake or at the Narrows (Vol. II, 963).

Witzel, John H., 70 years of age; first came to Harney Valley in 1877; lived most of the time in Harney Valley and became familiar with Malheur and Harney Lakes (Vol. I, 61).

Once went out to Pelican Island in a little home-made flat-bottom skiff, going hunting (Vol. II, 969).

1870 to 1880

Fitzgerald, Maurice, past 68 years of age, residing at present at Ross, California; went to Harney

Valley in 1873 in detachment of soldiers. From July 16, 1873, took up a more or less permanent residence in Harney County (Vol. I, 31–32).

On June 1, 1876, went with Capt. Bendire to Malheur Lake for the purpose of getting eggs; had a small flat-bottomed boat with a couple of crude oars; between Malheur Slough and Pelican Island had enough water to float the boat; from the mouth of Malheur Slough they went along Pelican Island for a mile or mile and a half (Vol. II, 971).

Hanley, William, residing on a ranch near Burns, Oregon. At the time of giving his testimony was a member of the State Highway Commission of Oregon; first came to Harney Valley in 1879; has not lived there continuously since that time; quite familiar with Harney Lake (Vol. I, 35–37).

Never had time to go into the center of Malheur Lake in a boat; never been out in Malheur Lake on a sailboat, or in a boat with an outboard motor (Vol. II, 970–971).

1880 to 1890

Brown, Armstead Ellsworth, 67 years of age; lived in Harney Valley since July 1884 (Vol. I, 15).

Went in a boat from close to Stauffer corral near Windy Point to Pelican Island in 1885; did not land as they would have had to get out into the mud (Vol. II, 975).

Carey, Clarence Thomas, 58 years old, residing in Jordan Valley; came to Harney Valley in 1883; first saw Malheur Lake in 1884 (Vol. I, 18).

Has seen only two or three rowboats on Malheur Lake, supposedly being used by hunters. Was out

once in a boat himself with two or three others; dragged the boat out into the water where it could be floated; then once in awhile would run into mud and have to push it off again (Vol. II, 972).

Hughet, Rubin T., 71 years of age; lived in Harney Valley since June 1, 1885 (Vol. I, 41).

Never went hunting in a boat in the early days (Vol. II, 975).

Loggan, John Edward, 61 years of age, residing at Burns, Oregon; first came to Harney Valley in 1885, and since that time it has been his home (Vol. I, 44, 45).

Used to go hunting down there (in Malheur Lake) in 1887 or 1888; first year went down used a boat, which was a small home-made rowboat, with oars, and went out so that he was on the lake but did not go into the lake very far because it was a hard matter to get back, to get your channel to go back the way you went out; would just go down that channel, and would probably go down a ways and find a tule nest or a bank of tules; one or two would get on the tules and the others would drift around; after he got out of the channel it was all tules for a long ways out, although there would be channels. The water was not very deep; could always find bottom with an oar, possibly two or three feet; did not recall ever seeing any other boats there (Vol. II, 973).

Lucas, Martin Anderson, 88 years old; arrived at Camp Harney in 1867 (Vol. I, 45).

In the early days went hunting geese and ducks around Malheur Lake; borrowed a home-made flat-bottomed wooden boat which might be called a mud scow; used paddles; about a foot and a half or two feet of water in the slough; tules were very thick

in every direction; water came up to the tules in places and in some places there was not any water. On the road to the Narrows you could not see the lake in a lot of places on account of the tules (Vol. II, 971–972).

Marshall, George, 72 years of age; has lived in Harney Valley since 1884 (Vol. I, 47).

Out on Malheur Lake once in a boat (Vol. II, 973–974).

Martin, Edmund J., 80 years of age; present residence San Francisco, California; first went to Harney Valley in 1882 (Vol. I, 47).

Went swan hunting at Malheur Lake in the early spring of 1888, and used a flat-bottomed homemade boat three or four feet wide that would slide around in shallow water; most of the time they used oars, but sometimes sailed through the open waters; didn't use the sail in the shallow parts of the lake because they would have been swamped when they came to a bunch of tules; got into the water when he first launched the boat, just north of Pelican Island. Looked for a channel up to the Narrows but couldn't find one; there was a labyrinth of channels among the tules, and when they got into the channels they could not see over the tules; there were numerous places that looked exactly alike among the tules (Vol. II, 974–975).

McKinnon, Robert J., 68 years of age; mail carrier by occupation; has been in Harney County about 43 or 44 years; first went down around Malheur and Harney Lakes in about 1887 or 1888 (Vol. I, 46).

Has seen boats on the south side of Malheur Lake near the Narrows; has not seen them in the upper

part; did not know what they used the boat for at the Narrows, but did not think it was used to haul people across (Vol. II, 972).

Thompson, Grant, born in 1863; resides in Lawen, Oregon; first came to Harney Valley in 1884 with a surveying party on a government contract; returned to Harney Valley in 1885; knows practically nothing about Harney Lake (Vol. I, 57).

Never tried to operate a boat on Malheur Lake and never did any hunting there (Vol. II, 972). When he was down looking at haying land in Malheur Lake in July 1887, the tules were so high you did not have a good vision of the country (Vol. II, 651).

1890 to 1900

Alberson, Jesse O., 56 years of age, residing at Diamond, Oregon; came to Harney Valley in the fall of 1886 and has remained there ever since (Vol. I, 11).

About 1898 and 1899 used a little home-made rowboat for hunting on Malheur Lake; the only difficulty in getting around in the boat was going around between tule patches in some parts of the lake; in other places it was necessary to get out in the water and drag the boat. The two years, 1898 and 1899, were pretty good water years, but he found it necessary to drag the boat pretty nearly all distances from a quarter of a mile down to 30 or 40 feet (Vol. II, 980).

Bunyard, LeRoy, 53 years of age, residing at Burns, Oregon; first came to Harney Valley in 1886; was down at Malheur Lake frequently; practically the first time he saw Malheur Lake was in 1893 (Vol. I, 16).

Had a small home-made boat, about 16 or 18 feet long; used oars; in some seasons had difficulty in using the boat; in the spring and high water did not have very much trouble, boat drew about four inches with one man in it, possibly more with two. Sometimes in the fall they would have to leave their boat a couple of hundred yards from shore and walk in on the tules. (Vol. II, 978–979.)

Campbell, W. A. Came to Harney County in June 1886; has lived there continuously since (Vol. I, 17).

Had a boat for a few years, which was about six or seven feet long and four or five feet wide; used the boat when he wanted to move in; had some sloughs to cross and sometimes they would be a little soft; put his stuff on this boat and hitched from two to four horses on it, and would go in with that; only used the boat with horses; in pulling the boat down, part of the time he would be in the water and part of the time on land (Vol. II, 984).

Catterson, Frank, 49 years old; came to Harney County in 1886; settled on a place near Malheur Lake in 1887 (Vol. I, 18).

Used a boat to get to Pelican Island. It was a little home-made rowboat ten or twelve feet long, drawing about five or six inches of water. Usually went across with horses and led them behind the boat. He never went in a boat much (Vol. II, 979).

Clark, Joseph William, 58 years old; residence, Harney, Oregon (Vol. I, 20).

At one time went to ranch with neighbor in his little flat-bottomed boat; could not go in direct line; had to get out into the water in front of

neighbor's place; then had to turn in several directions; had to dodge to get in between the patches of tules; waded through the mud and water to get to shore; never measured depth of water but the water and mud struck them just above the knees, and it was not very easy walking (Vol. II, 976).

Comegys, Mrs. Fay, 54 years of age; came to Harney Valley in 1889 (Vol. I 24).

Lived at the Narrows; rowed to neighbor's house in a boat when the water was real high; could get to some neighbors' places in a rowboat but not to others as water was not deep enough; thing that prevented them from going was the large tules; they could not get through the tules; they were too heavy; there were many channels in some places; would not say how deep the water would be but not very deep; have had high water several years (Vol. II 981–982).

Comegys, Sidney, 52 years old; resides at Diamond, Oregon; first came to Harney Valley in 1886 (Vol. I 24–25).

Had been out on Malheur Lake in a home-made boat; never got very far out in the open water; party he went with trapped around the edges of the tules; this party operated his boat with a pair of oars; he wore big, high gum boots and had to get out in some places; in some places he could land good and in others he could not; he used the boots to shove the boat to edges and places where he could not get his traps (Vol. II 982).

Culp, Lloyd B., 65 years of age, residing at Crane, Oregon; lived for 16 years north of Malheur Lake (Vol. I 25).

Hunted around in Malheur Lake in a boat; it was a home-made flat-bottomed boat about three

feet wide; that was between 1890 and 1900; used two oars and a pole; had to have a pole, and if he didn't, could not go much distance because he would hang up on mud and tules; had to push the pole down in the mud to get solid ground to push out; also used a canvas boat in hunting. They would follow the cattle trails through the tules; would find an open place and then a big batch of tules; all the way through it was like that. Standing up in a boat the tules would be as high as his head, and in some places awfully thick (Vol. II, 983).

Dunn, Mrs. Effie L., came to Harney Valley with her parents in 1892 (Vol. I, 29).

During one winter when going to school she experimented a little with a boat. They used the boat every day for about a month, probably in 1894; it was in the high-water season of an extremely high-water year. In order to get to the schoolhouse they followed the slough; had to walk a little ways but followed the slough until they got to where they could walk; used a flat-bottomed boat (Vol. II, 975–976).

Dunn, Thomas T., 50 years of age; has lived in Harney County ever since 1884 or 1888. His father had a homestead on the Blitzen River about four miles south of Malheur Lake. Between 1893 and 1896 his mother moved onto the lake (Vol. I, 29).

Used a boat some on Malheur Lake; it was a square-bottomed boat; got around in the open water with oars and pushed it along; had a pole and pushed it through the tules (Vol. II, 983).

Elliott, Cortis E., 53 years old, residing at Diamond, Oregon; resided at the Narrows in 1890 (Vol. I, 30).

Farthest he has been in a boat in the west end of Malheur Lake was up north of the Sodhouse, which was in high water; at times when the water was high, after he left the channel at the Narrows, he could row right along but would have to pick his way through the tules. During the low water time has seen it in the spring when the boat would have to be pushed with oars to get through a few places, and when you get in there there is quite a lot of deep water and shallow water, and you would have to pick your way around from one channel to another to get through. There would be open places to get through and places you could not get through (Vol. II, 977).

Heinz, John J., 78 years old; lived in Harney County since 1891 (Vol. I, 37).

Did not hunt and did not have a boat (Vol. II, 983).

Hembree, Guy L., 53 years old; came to Harney Valley in 1886 and lived near Burns, Oregon; in 1890 moved to the Narrows and lived there about nine years (Vol. I, 37).

Does not think he was up in west end of Malheur Lake in a boat; was not more than a mile above the Narrows in a boat. At the time he went in a boat about a mile up toward Malheur Lake he struck the tule barrier about a quarter of a mile above the bridge at the Narrows; practically all tules there (Vol. II, 981).

Johnson, Charles Sumner, 77 years old; came to Harney Valley in 1887 (Vol. I, 43).

Used a rowboat in about 1892 gathering duck eggs. Cut some hay one year and hauled it on boat (Vol. II, 979).

Reinemann, A. A., 44 years of age; parents brought him to Harney Valley in 1887; his father had a place on the Malheur Lake (Vol. I, 50–51).

Did not hunt much; too hard to get through the tules; never went very far in a boat; too hard to push it through the tules (Vol. II, 982).

Ware, Paul, 49 years of age; present residence Cambridge, Idaho; formerly lived in Harney Valley; in the spring of 1891 moved onto the ranch which was located on Mud Lake, and continued to live there until 1901 (Vol. I, 59).

Rowed up to the Narrows and to Malheur Lake just one spring; that one spring there was high water. They went up through the channels, and by going backwards and forwards they were able to work their way through (Vol. II, 980).

1900 to 1910

Benson, George M., 53 years of age, residing at Voltage, Oregon; is Reserve Protector of the Lake Malheur Bird Reservation; first saw Malheur Lake in the fall of 1909; settled on the lake near the south meander line on the Blitzen River (Vol. I, 13).

Since the fall of 1909 used a rowboat, what is called a duck boat; did not go into the western part of the lake; never traversed any portion of the west part of the lake west of Grave's Ridge, the tule area, in a boat. The south end of Graves Ridge he characterized as a big, flat country, a flat tule area. Trappers used home-made boats drawing three or four to six inches. The tule roots are bodies of dead masses of tule roots found in different places in the lake; masses of tule roots—vegetation roots—they looked like tules; they had not

grown any green stuff for years; when the water was high he would run out into something in the lake, would get stuck, and it would be turf, and it would hold you up; and when you got off from there it would be all right; he has run onto these many, many times (Vol. II, 995–996).

Parsey, John G., 63 years of age, living at Burns, Oregon; lived in Harney County since 1899; been down to Malheur Lake from time to time from 1902 to 1908 (Vol. I, 27).

Used a boat generally in the eastern part of Malheur Lake. Did not at all times find enough water to float the boat. Lots of times, and very frequently, would run onto a muddy place and have to take a pole to push the boat out. Sometimes the water would not be very deep but the mud would be deep enough to get over with gum boots; usually carried a pole in the boat to push it off these muddy places; he and his associate usually wore long hip boots; there was quite a space of open water in there out from the end of Pelican Island; had two boats, a narrow one and a small one to hunt with; in going through the tules they would go from one little pond to another, and go through the cow trails where they mashed the tules down, but you couldn't go through with a big boat as you could only get through there by shoving and pushing the boat from one pond to another; sometimes used poles in going from one pond to another; sometimes used poles rather than get out and shove the boat along; in high water there were places you could get through in Malheur Lake; the boat he had would draw, perhaps, three or four inches of water; used the little boat to sneak through the channels (Vol. II, 991–993).

Darsey, Mrs. Ollie, born in 1874 and resides in Burns, Oregon; with her family moved to Harney County in 1882 (Vol. I, 27).

Accompanied her husband to Malheur Lake on a hunting trip three times, the first in the spring of 1907. He used two flat-bottomed home-made row boats, with oars. They brought the boat in a wagon to Clarence Carey's place, which is south of Lawen, and about a mile and a half from Saddle Butte then they hitched a horse onto the boat and dragged it out to the water; then she got in it and her husband shoved it out into the water until they could get to where they could float the boat, which would be perhaps 100 yards or more; from that point they went hunting around the tules; in the operation of the boat sometimes they got groundings and sometimes they would get stuck and sometimes they would get out to get the boat floating again; sometimes her husband could take an oar and shove it loose, but the most of the time he wore gum hip boots and would step out and shove the boat loose (Vol. II, 985–986).

Elliott, Hadden, 43 years of age, born at Burns, Oregon; present residence, Diamond, Oregon; has lived in Harney Valley all his life (Vol. I, 30).

Experimented some with boats near the Narrows as a boy; been up the slough toward Malheur Lake; rowed a boat around the western part of Malheur Lake; found difficulty in getting around through there in different places, but there were channels and deep water you could go through; some places you would have trouble (Vol. II, 993).

Finley, William L., residing at Jennings Lodge, Oregon; is a naturalist, writer, author, and lec-

turer; at present with the American Nature Association, Nature Magazine, Washington, D. C., and for many years has been connected with the National Association of Audubon Societies for the conservation of wild bird and animal life; was State Game Warden of Oregon for four years (Vol. I, 31).

In 1908 went with one Bohlman to make a survey of the Lake Malheur Bird Reservation; had just a small flat-bottomed rowboat which they got from a fellow named Bill Marshall; no other boats in there at the time he was there; had great difficulty; hunted for over a week to find a boat and the boat they got had not been used and the seams were all open and they patched it up; got it so the seams were all right so they could go out in it; there were no boats they could find anywhere on Malheur Lake except this one; cruised all around over the swamp area and found no other boats. Marshall's cabin was at the mouth of the Blitzen River, and from there on the water merely spread out into a wide tule marsh; it was shallow after they passed down into the tules, which were growing six, eight, or ten feet high; had great difficulty in finding his way through the marsh to the lake; got lost once or twice and finally found their way through the tules by tying little white rags to see to meander by out there (Vol. II, 994–995).

Hamilton, Lester Marion, 50 years of age, residing about three miles east of Burns, Oregon; has lived in Harney Valley since 1893; lived down near the Narrows from 1894 to 1897 (Vol. I, 35).

In about 1901 went up through the Narrows into the west end of Malheur Lake in a row boat; there

were channels all the way through and only occasionally did they have to put the boat through the channels; in some cases they had to push the boat through the tules; the part of Malheur Lake that he was on in a boat was all shallow water except in the channels; in some cases they had to push the boat; hard time finding their way back in those channels and tules; they all looked about the same (Vol. II, 984).

Hembree, John L., 55 years of age, residing at Grants Pass, Oregon; came with his folks to Harney Valley in 1889 and settled at the Narrows where his father patented some land and built a house on it, and lived there several years; knowledge of lakes continues to the past ten years (Vol. I, 38).

On different occasions, during a ten year period from 1901, used a boat for hunting. The farthest east from his homestead at the Narrows he had ever been was to the Sodhouse. They had no trouble in getting a boat into the channel at the Narrows; they would traverse the channel for about three or four hundred yards and then enter what they called the body of tules, where they had to pick their way among the tules for about a mile, and then they had plenty of water for rowing (Vol. II, 986–988).

Hibbard, Dr. Llewellyn Eugene, 68 years of age; been living in the vicinity of Burns, Oregon for 31 years; dentist by profession (Vol. I, 38).

Been on practically every part of Malheur Lake in a boat; had a little folding canvas boat that he carried; familiar with the west half of Malheur Lake because of the fact that most of the time he spent in there was in a boat and it was not good

boating down in that part of lake; has traversed open water west of Cole Island in a boat; at certain seasons of the year a kind of a plant grows in the water; it is a little weed of a plant that comes to the surface of the water, then runs like a vine on the surface of the water and the leaves lie on the surface; it comes up in the summer and grows so much that great difficulty is had with boats, especially if a little outboard motor is used, as it tangles with the motor and gives a good deal of trouble. Practically all of the open water was covered with this weed at certain seasons of the year (Vol. II, 990–991).

Huffman, William David, 68 years of age, residing at Andrews, Oregon, in the south end of Harney County; came to Harney Valley in 1888; is engaged in the stock business (Vol. I, 41).

Has never done any hunting in Malheur Lake in a boat. Does not know that he ever saw anyone hunt in a boat in Malheur Lake (Vol. II, 990).

McGowan, Archie, 55 years of age, residing in Burns, Oregon; came to Harney Valley in 1882; absent from Harney Valley from 1890 to 1900, but has lived there continuously since 1900; never did live around the lakes but has been down there quite a little (Vol. I, 45).

Been in Malheur Lake several times in a light skiff, a home-made boat, drawing a few inches of water, which was operated with a pole and a paddle; hard to get into the water; would generally drag the boat sometimes several hundred yards with gum boots on until the boat floated and then they would get into it; difficult to operate a boat on account of the tules; has had some peculiar ex-

periences in boats; had to be pretty careful about getting out and as to whether you were going to get back again; you would go out to a little open water and the first thing you knew you would not know where you were; if it happened to be a cloudy day you would lose your directions and would not know how to get back; when he was in the west half of Malheur Lake in a boat it was absolutely impossible while among the tules to see any of the well-known landmarks, because the tules were so high in there you could not see anything. In these tules were channels of water that looked like they would lead some place and you would think you were going out into big bodies of open water, but quite often you would not get anywhere. The hunters down there would put a piece of white paper or a piece of cloth upon the higher tules in order to find their way out (Vol. II, 988–990).

Smith, D. H., Jr., 38 years of age (Vol. I, 54).

Never operated a boat on Malheur Lake (Vol. II, 988).

Vickers, Thomas L., 46 years of age; born close to Old Fort Harney, Oregon, and has lived in the Lake Malheur neighborhood ever since; at one time lived inside of the boundary of the present Lake Malheur Bird Reserve (Vol. I, 58).

Never had occasion to use a boat (Vol. II, 995).

1910 to 1920

Benson, George M., 53 years of age, residing at Voltage, Oregon; at present Reserve Protector of the Lake Malheur Bird Reservation, Harney County; first saw Malheur Lake in 1909; settled on the lake in the fall of 1909; bought a cabin in the west part of Malheur Lake and moved it up there;

became Warden of the Lake Malheur Bird Reservation in 1918 and has been Warden ever since (Vol. I, 13).

Duties required him to report on conditions of the lake which he ascertained by patrolling the various areas. During high water seasons patrolled the inside of the Neal Meander Line with a row-boat and an outboard-motor boat; got the boat out into Malheur Lake by following the channel of the Blitzen River; would have to keep to the channels; that was the only way to get to the lake; had difficulty at all times in patrolling with a boat because of shallow water; usually went in the spring-time, in high water; there were times when he started out and had to return on account of shallow water; in patrolling with a boat he would generally follow some slough or channel, and if he did not would expect to have trouble. By far the greater portion of his patrolling at the Reserve was by other means than boat (Vol. II, 999–1002).

Heinz, John W., 54 years of age; lived in Harney County since 1891, all the time in the neighborhood of Malheur Lake (Vol. I, 37).

Experimented with boats some on Malheur Lake, generally on the northern side west of the main channel of the Silvies River and east of Graves' place, with both a row boat and a motor boat; motor boat was the same kind of a boat as the row boat; most of the places he could float along easily but once in awhile he would strike a shallow place; then he used to pole the boat off; carried a pole along with them; motor boat was one and one-half horsepower; sometimes the propeller would strike the bottom but it would not give much trouble because it was mostly mud; got stuck once in awhile

and then would have to help by shoving it off the sand bar; occasionally had trouble with the propeller on account of its fouling with tules and other plants, although it was a weedless propeller. Used the motor boat from 1911 to 1918, and during that time he and Mr. Benson were the only ones who had motorboats in there (Vol. II, 997–998.)

Hibbard, Dr. Llewellyn Eugene, 68 years of age; been living in the vicinity of Burns, Oregon, for 31 years; dentist by profession (Vol. I, 38).

Held official position with Biological Survey in connection with the Lake Malheur Bird Reservation, commencing about 1918. From then until 1924 or 1925 he used a boat with an outboard motor in patrolling whatever part of Malheur Lake he could get over. He would go from Springer's down the Blitzen River to the lake, and sometimes he was only able to get down just to the open water; sometimes he was able to get to Cole Island, but never was he able to take the boat to Pelican Island. There were various depths of water, and it was always a question whether he could visit the places he wanted to. Oftentimes he would get marooned, and would leave his boat and go on in a little canoe, which he had in tow and which drew about an inch of water. He stated that on account of the shallowness of the water the motorboat wasn't very useful in the years he had anything to do with it (Vol. II, 996).

Jewett, Stanley G., 46 years of age; at present residing at Portland, Oregon; employed by the Department of Agriculture, Bureau of Biological Survey, and in charge of predatory animal and rodent control for the State of Oregon (Vol. I, 43).

Went once in a boat to Cole Island; has never been east of Cole Island in a boat (Vol. II, 999).

1920 to 1931

Billingsley, Jeff D., 69 years of age, living at Ontario, Oregon; never lived in Harney Valley; lived in that vicinity since 1880, and had occasion to visit Lakes Malheur and Harney (Vol. I, 14).

Has been duck hunting in the last eight or ten years on Malheur Lake, but had no boat (Vol. II, 1002).

Gibson, James Henry, 73 years of age, residing on the south side of Malheur Lake; came to Harney County the forepart of June, 1883, and has been there off and on ever since; farmer (Vol. I, 34).

Has never seen George Benson, the Game Warden, with his motor boat over the area where he cut grass; the Warden did have a motor boat with which he would go into the creek and the lake (Vol. II, 1002).

HARNEY LAKE

1890 to 1900

Hibbard, Dr. Llewellyn Eugene, 68 years of age; been living in the vicinity of Burns, Oregon, for 31 years; dentist by profession (Vol. I, 38).

Has been out on Harney Lake from time to time in a boat (Vol. II, 1003).

1900 to 1910

Bardwell, Willis George, 67 years of age, residing at Burns, Oregon; came to Harney Valley in

1884; between 1884 and 1887 was around Harney Lake a good many times (Vol. I, 12).

In 1900 he saw a dugout on Harney Lake; did not know the man who owned it but he was a plume hunter (Vol. II, 1003).

1910 to 1931

Jewett, Stanley G., 46 years of age; at present residing at Portland, Oregon; connected with the Bureau of Biological Survey of the Department of Agriculture (Vol. I, 43).

Went down to Harney Lake several times but never had occasion to have a boat; did not think he had ever seen a boat there (Vol. II, 1003).

In General

Bollenbaugh, George H., 47 years of age; trapper by occupation; has lived in Harney Valley since 1884 (Vol. I, 14–15).

Rode in a home-made boat just once on Harney Lake; found the boat in what is known as the Hughet Spring Branch that runs through the edge of the Sizemore place; thinks they went down the channel but did not go very far, probably three-quarters of a mile out into the lake; does not remember the season of the year or the year in which that occurred (Vol. II, 1002–1003).

Cecil, William Carol, 84 years of age; first came to Harney County in 1873; came back every year thereafter until he moved there in 1877, where he has lived ever since (Vol. I, 20).

Never been out on Harney Lake in a boat and has never seen anyone else on that lake in a boat (Vol. II, 1002).

Hamilton, Lester Marion, 50 years of age, residing about three miles east of Burns, Oregon; lived in Harney Valley since 1893 (Vol. I, 35).

Never saw any boats around Harney Lake (Vol. II, 1002).

Mud Lake

1890 to 1900

Elliott, Cortis E., 53 years of age, residing at Diamond, Oregon; in 1890 resided at the Narrows (Vol. I, 30).

Went down to the Narrows and Mud Lake; used home-made boats; first one was just a flat, square, home-made boat or skiff pointed at each end. In the low water period there were only a few places where a boat could be operated; that was in the channel at the Narrows and in the little lake below the Narrows named Mud Lake. When the water is up it is easy to land a boat but when the water recedes it is necessary to drag the boat through the mud in order to get out; in order to land with a boat it was necessary to wade probably 30 to 50 yards; when the water was up there would be sloughs or low places, and you could follow around and land onto a place, and then follow a ridge down and get out; there were places where that could not be done; you could not land without dragging the boat or wading for quite a distance. There is quite a ridge running around Mud Lake and channels leading out, and when the water rises high enough it goes over that channel and then runs off from there and goes into Harney Lake; found open water when the water was high. (Vol. II, 1007–1008.)

Hibbard, Dr. Llewellyn Eugene, 68 years of age; been living in the vicinity of Burns, Oregon, for 31 years; dentist by profession (Vol. I, 38).

Was in Mud Lake in a boat shortly after he came to that country; took a little folding canvas boat out and started for the Narrows, to go down to Harney Lake, and across Mud Lake. It was a vast body of water that season (1899), which was one of the high-water years; did not go all the way through Mud Lake down to Harney Lake; took a whole day trying to go from there to Harney Lake; found too many interesting things, and when the day was ended he was several miles from there; had no difficulty in going as far as he went in the boat (Vol. II, 1010–1011).

Smith, Richard A., 66 years of age; has lived in Harney County since 1889 (Vol. I, 53).

Been out in Mud Lake in a homemade rowboat 12 or 14 feet long and 2 feet wide that probably belonged to some of the neighbors; has been across the lake hunting duck eggs once or twice; could touch the bottom with an oar; would not say how deep it was, but the length of a normal touch of an oar; did not know how many inches of water the boat drew and knew nothing about boats; the oar that was used was about seven feet long and was used to push the boat along instead of rowing; had an idea that the depth of the water was four and a half to five feet; in the edge of the tules it would run from twelve to eighteen inches or two feet. Has rowed a few times up to the bridge at the Narrows, and once they rowed and pushed the boat most of the way to Springer's (Vol. II, 1008–1009).

Ware, Paul, 49 years of age, residing in Cambridge, Idaho; formerly lived in Harney Valley; located on Mud Lake in 1891 and lived there until 1901 (Vol. I, 59).

Hunted a great deal; used a boat in both high and low water; not much difference in the operation of a boat in high and low water around Mud Lake, except at the landing; in Mud Lake, in the open part of the lake, there was open water but what was called the channel would dry up; there was always water from there on along the natural bed of Mud Lake; used a boat in going to school and operated it as a pushboat with a pole (Vol. II, 1009–1010).

1900 to 1931

Benson, George M., 53 years of age, residing at Voltage, Oregon; Reserve Protector of the Lake Malheur Bird Reservation (Vol. I 13).

Never was on Mud Lake in a boat (Vol. II 1012).

Dillman, Charles E., 41 years of age, residing in Burns, Oregon (Vol. I 27).

Only boat they used was a trip or two they made on Mud Lake; went down from Malheur Lake to Mud Lake, and the boat used was an old deserted boat they found there in the slough near Mud Lake; never got out of Mud Lake with it; did not get out of the immediate sloughs where the boat was located; not much use of oars; pushed the boat through the tules part of the time and when they got in the open water they kind of oared the boat along; not able to use oars in the tules. (Vol. II 1011–1012)

Elliott, Hadden, 43 years of age; born in Burns, Oregon, but at present time living at Diamond,

Oregon; lived in Harney Valley all his life (Vol. I 30).

As a boy he experimented some with boats, mostly at Mud Lake; never had much trouble with a boat in Mud Lake as long as he stayed in deep water, and if he got out on the edge by the tules he would get into shallow water; has taken a boat west from Mud Lake down through that channel in the spring of the year; used oars but strong-armed it mostly: just a home-made boat. (Vol. II 1012)

Hamilton, Lester Marion, 50 years of age, residing about three miles east of Burns, Oregon; has lived in Harney Valley since 1893 (Vol. I, 35).

During the period from 1905 to 1906 had occasion to use a boat a great deal on Mud Lake; crossed Mud Lake quite frequently through the Narrows in a small flat-bottomed boat; used oars; had difficulty in operating the boat around Mud Lake only when they would get to the land; always had difficulty then; it was a wading job; the shore line was so shallow that they could seldom push the boat up close enough without wading out; used the boat on Mud Lake during the seasons covering the period 1905–1906; did not ground out in the middle of the lake while in the boat, but got stuck in the tules plenty of times. (Vol. II, 1011.)

In General

Dunn, William J., 67 years of age; lived near Malheur Lake; been living on that place for fifteen years; first came to that country in 1885 (Vol. I, 29).

Used a boat some on Mud Lake in hunting; when first took it up the water would reach from Mud

Lake down to Harney Lake and it would be handy to have a boat there; in getting the boat into the water you would have to put it in some slough to get it right off; if you did not get it in the slough you had the tules and grasses to run through on the edges; occasionally near the edges would have to get out of the boat and drag it around; boat used was a little flat-bottomed home-made skiff; used oars. (Vol. II, 1007.)

Hamilton, Lester Marion, 50 years of age, residing about three miles east of Burns, Oregon; has lived in Harney Valley since 1893 (Vol. I, 35).

Did not think people used boats very much to hunt on Mud Lake. (Vol. II, 1006.)

The Narrows

In General

Bollenbaugh, George H., 47 years of age; trapper; lived in Harney Valley all his life, since 1884 (Vol. I, 14–15).

Made a trip in a boat from the bridge at the Narrows; rowed around through the tules hunting duck eggs, in the west end of Malheur Lake; saw open water near the Narrows. (Vol. II, 1013.)

Bunyard, LeRoy, 53 years of age, residing at Burns, Oregon; first came to Harney Valley in 1886 (Vol. I, 16).

Hunted ducks and geese at the Narrows in a boat; could use a boat in the high water in the spring of the year, but in the fall of the year it was not necessary to have a boat, that is, the most years. In the fall, sometimes, would take the boat out aways and then go afoot with gum hip boots; has seen the lake entirely dried up; he does not recall

ever having seen the water up to the floor of the bridge at the Narrows, but believes that along in the nineties there was water there every year for several years; did not know just how many years but stated there was a little water at the Narrows but since that time it has been getting drier. (Vol. II, 1012–1013.)

Comegys, Mrs. Fay, residing in Portland, Oregon; first came to Harney Valley in 1889, living for two years at the Hembree Bridge and then at the Narrows, where her father took up a homestead (Vol. I, 24).

As a girl experimented some with a boat on the lake down at the Narrows; had a small home-made rowboat; just rowed around in the lake for pastime; usually operated the boat in the spring and summer but not in the fall because there was not any water. (Vol. II, 1014.)

Elliott, Cortis E., 53 years of age, residing at Diamond, Oregon; lived at the Narrows in 1890 (Vol. I, 30).

Used a boat at the Narrows; before the bridge was built used to ferry people across it frequently; did not charge for it; he was a youngster and they used to give him a half dollar. (Vol. II, 1012.)

Elliott, Hadden, 43 years of age, residing at Diamond, Oregon; has lived in Harney Valley all his life; lived in the vicinity of the Narrows until 1916 (Vol. I, 30).

Went in a boat from the Narrows out to the open part of Malheur Lake, mostly when he was young and while hunting. (Vol. II, 1014.)

Hembree, Guy L., 53 years of age, residing at Klamath Falls, Oregon; first came to Harney Val-

ley in 1886; moved to the Narrows in 1890 and lived there about 9 years. (Vol. I, 37.)

From time to time while living at the Narrows used a home-made rowboat about sixteen feet long for different purposes; used to hunt some. (Vol. II, 1013.)

Jewett, Stanley G., 46 years of age, residing at Portland, Oregon; connected with the Department of Agriculture. (Vol. I, 43.)

In 1912 went to Malheur Lake with State Game Warden and at that time saw boats at the Narrows tied up at the bridge and one or two boats at Sod-House Spring, on the water; could not say to what point the water came. (Vol. II, 1014.)

Venator, Alphena, past 69 years of age; first came to Harney Valley in 1872; was in and about Malheur Lake between 1872 and 1878. (Vol. I, 59.)

Went up and down the channels from the Narrows in a boat; did not think he went half a mile east to the Narrows. (Vol. II, 1014.)

Ware, Paul, 49 years of age, residing at Cambridge, Idaho; formerly lived in Harney Valley; moved onto a ranch located on Mud Lake in 1891; lived there until 1901. (Vol. I, 59.)

Used a boat in order to get across the Narrows to go to school. (Vol. II, 1013.)

Sodhouse Spring—Springer's Spring

In General

Smith, Darius Hynson, 87 years of age; went through Harney Valley in 1853; came back to Harney Valley to live in 1872 (Vol. I, 53–54).

Recollected that old man Springer might have had a little old flat boat that he towed around in

the spring but not in the lake; it was not ever in the lake (Vol. II, 1006).

Ortego, Prim, 68 years of age; came to Harney Valley in 1873; his work took him around Malheur and Harney Lakes a good deal; from 1877, when he first saw the lakes, he was down there almost every year; has seen it in the spring, fall, and winter (Vol. I, 48).

Has seen a boat at Springer's (Spring) (Vol. II, 1006).

Jewett, Stanley G., 46 years of age; connected with the Department of Agriculture in Oregon since 1910 (Vol. I, 43).

In 1912 went to Malheur Lake with State Game Warden; there were boats at the Narrows tied up at the bridge and one or two at Sodhouse Spring; went in a boat from Sodhouse Springs down the river to the edge of Malheur Lake where he could see some large bodies of open water (Vol. II, 1006).

Dalton, James M., 70 years of age, residing at Burns, Oregon; went to Harney Valley in 1886; settled about seven miles southeast of Burns on the Hanley Lane, or the road to the Narrows; first visited the lakes about 1888 (Vol. I, 26).

Used a boat at Springer's Spring a little bit, just across some channels that were too deep to wade. (Vol. II, 1006.)

All Lakes

1880 to 1890

Simmons, George Washington, 50 years of age; has lived in Harney Valley since 1888; used to live south of Malheur Lake, next to the Sodhouse; left in 1913 (Vol. I, 52).

Never used a boat on any of the lakes (Vol. II, 1004).

1900 to 1910

Carey, J. L., 56 years of age, living at Lawen, Oregon; first came to Harney County in 1883 (Vol. I, 18).

Has done very little hunting in Malheur Lake and has never used a boat; some of his friends had home-made flat-bottomed row boats on the lakes; never in a boat on Mud Lake or Harney Lake. (Vol. 1004–1005.)

1910 to 1931

Triska, Francis W., 44 years of age; lives about two and a half miles northeast of Burns, Oregon; first came to Harney Valley in 1910; took up his residence in about the present Lake Malheur Bird Reserve, in 1915; from 1915 to 1918 held the position with the Department of Agriculture, Bureau of Biological Survey, of warden of the Lake Malheur Bird Reserve (Vol. I, 57–58).

Had a 14-foot compressed-air boat and a canoe; also had a little outboard motor on the boat; kept that boat at Springer's Spring; during the years 1915, 1916, 1917, and 1918 the territory covered in the boat was principally northeast of Springer's Spring, or the Sodhouse Spring; that was the largest body of water there at that time; that was the place where he used the big boat; dragged the canoe behind the boat to go into different little channels; would wade and pull the canoe around to places he wanted to go; was not able to use boat in all seasons of the year; mostly used it during April, May, June, and July; draught of boat was

about fourteen inches; was never able to get to Pelican Island with the motorboat; could not take the motor boat into the western part of Malheur Lake; once went in a canoe from the Narrows down to Harney Lake; did not go from the Narrows up to the open waters of Malheur Lake with the canoe. (Vol. II, 1005–1006.)

In General

Caldwell, Lee Minis, 68 years of age; first came to Harney Valley in 1879; first saw Malheur Lake June 20, 1879; his work as a rider took him into the vicinity of Malheur and Harney Lakes (Vol. I, 16–17).

Never used a boat on either of the lakes; only boat he ever saw was after the break occurred in the Sand Reef; once at the Narrows saw a skiff anchored or tied up; during the time he was on the lake there was never any supplies transported on the lake; never saw any boat on the lake bring supplies in (Vol. II, 1003–1004).

Whiting, Frank, 60 years of age, residing four and a half miles north and east of Burns, Oregon; came to that country when he was three years of age; his work as a rider took him down to Malheur and Harney Lakes a great deal; was there for the first time in June 1885 or 1886 (Vol. I, 60).

Has not seen any boats on either Malheur or Harney Lakes (Vol. II, 1004).

Whiting, Schuyler, 63 years of age; lives near Burns; first came to Harney County in 1874 (Vol. I, 61).

Never been on lakes in a boat (Vol. II, 1004).

2. Digest of General Conditions as to Boating

(a) WITNESSES FAMILIAR WITH THE LAKES FOR MANY YEARS WHO HAD NEVER SEEN A BOAT THEREON

Malheur Lake

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(b) WITNESSES FAMILIAR WITH THE LAKES FOR MANY YEARS WHO HAD NEVER USED A BOAT THEREON

Malheur Lake

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Mud Lake

Benson	1012

Harney Lake

Cecil, William Carol	1002
Hamilton, Lester Marion	1002
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All Lakes

Caldwell, Lee Minis	1003
Carey, J. L	1004–1005
Simmons	1004
Whiting, Schuyler	1004

WITH REFERENCE TO NEAL MEANDER LINE OF 1895

(c) THE TESTIMONY OF THE WITNESSES IS SUBSTANTIALLY UNIFORM THAT MALHEUR LAKE AND MUD LAKE ARE FOR THE MOST PART WITHOUT SHORE LINES, AND THIS CONFIRMS THE TOPOGRAPHIC SURVEYS

(1) *Malheur Lake*

WITH REFERENCE TO NEAL MEANDER LINE OF 1895

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(2) Mud Lake

WITH REFERENCE TO NEAL MEANDER LINE OF 1895

(Index, title F. Mud Lake 4. Banks, vol. I, p. 90 et seq.)

Pecore	802

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Elliott	804
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(3) The Narrows

Hembree	786
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(d) THE FLAT TOPOGRAPHIC CONDITION NECESSITATED THE PUSHING OF THE BOATS OUT MANY YARDS BEFORE ENOUGH WATER COULD BE FOUND FOR FLOATAGE

Matheur Lake

	Volume II, page
Bunyard, LeRoy	978
Carey, Clarence Thomas	972
Clark, Joseph William	976
Comegys, Mrs. Fay	981
Comegys, Sidney	982
Darsey, Mrs. Ollie	985
Howser, Thomas George	964
Martin	974
McGowan	989
Triska	1005

Mud Lake

	Volume II, page
Dunn, William J	1007
Elliott, Cortis E	1007
Hamilton	1011

In some cases channels were found among the tules, but these channels lead many times into closed tule patches, and the boatmen had to return and try another channel, sometimes not being able to get through at all on account of the density of the tules.

Malheur Lake

	Volume II, page
Clark, Joseph William	976
Culp	983–984
Elliott, Cortis E	976
Finley	994–995
Hamilton	984
Hibbard, Doctor	970
Loggan	972–973
Martin	974–975
McGowan	988–990
Reinemann	982

(e) THE TULE GROWTH WAS SO HIGH THAT IT WAS IMPOSSIBLE TO SEE PROMINENT LANDMARKS SUCH AS SADDLE BUTTE, WINDY POINT, OR STEEN'S MOUNTAIN

	Volume II, Page
Culp	983–984
McGowan	989
Thompson, Grant	651

The height of these tules varies from six or ten feet to over the head of a man on horseback:

	Volume II, Page
Caldwell, Lee Minis	648
Darsey, Mrs. Ollie	643
Finley	671
Gardner	638

Hunters adopted the expedient of hanging markers upon the tules in order that they could find their way out of the labyrinth of tule channels:

	Volume II, Page
Finley	671
McGowan	989

3. Transportation of Commodities by Water

Gardner, John, 77 years of age, residing at Burns, Oregon; first came to Oregon in 1871; saw Malheur Lake for the first time in 1878 (Vol. I, 33–34).

In all his experience in that community never heard of anyone using the lakes to freight on; stated it was not practical to use it for that purpose; never saw a boat on Malheur Lake that carried freight; so far as the operation of boats was concerned, stated the flood waters did not help much as they did not increase depth but area only (Vol. II, 1004).

Hanley, William, residing near Burns, Oregon; member of State Highway Commission; came to Harney Valley in 1879 (Vol. I, 35).

Has never known of any commerce being carried on in the lakes in boats unless a trapper had some (Vol. II, 1004).

Caldwell, Lee Minis, 68 years of age; came to Harney Valley in 1879; his work as a rider took him into the vicinity of Malheur and Harney Lakes (Vol. I, 16).

During the time he was in there on the lake, they never got any supplies that were transported on the lake. He never saw any boat on the lake bring supplies in (Vol. II, 1003–4).

Johnson, Charles Sumner, 77 years of age; came to Harney Valley in 1887 (Vol. I, 43).

In 1892 and the following year used a rowboat gathering up some duck eggs and the like on those little hills in Malheur Lake. Cut some hay out there, and hauled some over one year on a boat (Vol. II, 979).

4. Trapping and Hunting

Malheur Lake

1880 to 1890

Caldwell, Lee Minis, 68 years of age; came to Harney Valley in 1879 (Vol. I, 16).

Lots of muskrat houses in Malheur Lake in the early days but he did not see any muskrats; did not do any trapping; lots of coons on the lakes, and on the river there were lots of beaver and otter; never did any fishing on Malheur Lake (Vol. II, 714).

Gardner, John, 77 years of age; residence Burns, Oregon; first came to Oregon in 1871; saw Malheur Lake first time in 1878 (Vol. I, 34).

Next time he saw Malheur Lake was in 1883 when he was trapping muskrat in the fall of the year; trapped all over Malheur Lake, Cole Island, and Pelican Island; no traps were set in the summertime; all done in the winter; there was hunting for eggs; also wild game there (Vol. II, 715).

Loggan, John Edward, 61 years of age; residence Burns, Oregon; first came to Harney Valley in 1885 (Vol. I, 44).

In early days there was hunting in Malheur Lake; first time he went down was in 1887 or 1888;

went for purpose of hunting; all hunting he did was purely for sport; no commercial shooting or anything of that kind (Vol. II, 972–973).

1890 to 1900

Alberson, Jesse O., 56 years of age, residing at Diamond, Oregon; came to Harney Valley in the fall of 1886 and has remained there since (Vol. I, 11).

Around 1898 and 1899 used a little home-made rowboat for hunting on Malheur Lake (Vol. II, 980).

Bunyard, LeRoy, 53 years of age, residing at Burns, Oregon; first came to Harney Valley in 1886 (Vol. I, 16).

First saw Malheur Lake in 1893; went down to hunt for ducks and geese (Vol. II, 978).

Trapped in the wintertime, mostly for muskrats; muskrats all over Malheur Lake where there was water enough for them (Vol. II, 716–717).

Comegys, Sidney, 52 years of age, residing at Diamond, Oregon; first came to Harney Valley in 1886 (Vol. I, 24).

In winter of 1894 and 1895 went out with one Harvey Reinhart and trapped muskrats and mink (Vol. II, 982).

Howser, Thomas George, 60 years old, residing fourteen miles from Burns, Oregon; first came to Harney Valley in 1885 (Vol. I, 40).

About 1891 went with two other men duck and goose hunting; thinks it would be called Malheur Lake proper where they were; went duck hunting from time to time after that (Vol. II, 964).

Johnson, Charles Sumner, 77 years of age; first came to Harney Valley in 1887 (Vol. I, 43).

In 1892 used to go around Malheur Lake gathering up duck eggs (Vol. II, 979).

1900 to 1910

Finley, William L., naturalist, writer, author, and lecturer (Vol. I, 31).

Familiar with Lake Malheur Lake Bird Reservation; went there first to make a survey of the lake from the bird and animal standpoint. There were a great many muskrats, and from the standpoint of fur-bearing animals there was quite a bit of fur produced through that area. There were vast numbers of ducks, geese, and shore birds nesting all through that area.

(A substantial part of this witness' testimony was with reference to the fitness of the area for the preservation of bird and game life.) (Vol. II, 960–962.)

Hibbard, Dr. Llewellyn Eugene, 68 years of age, living in the vicinity of Burns, Oregon, thirty-one years; dentist by profession (Vol. I, 38).

With reference to fur-bearing animals there have been none caught in the Lake Malheur area for nine years. Previous to that time there were muskrats caught; after he came in 1899, it was practically reduced to muskrats, but they have disappeared. The cause may have been the slackness of the water. Before this last period did not know how many skins were taken out a year but it was a considerable number; probably several thousand pelts each year (Vol. II, 719–720).

1910 to 1920

Benson, George M., 53 years of age, residing at Voltage, Oregon; is Reserve Protector of the Lake Malheur Bird Reservation (Vol. I, 13).

Located on the south side of Malheur Lake in the fall of 1909; trapped out into the north part of Malheur Lake for muskrats and sold them; that year they got about 6,000 muskrats and about 78 mink; there were probably ten or twelve other trappers, all trapping for the same fur-bearing animals that they got; continued trapping all the years except the dry years; as the years passed the rats got scarcer; did not know when he last trapped but thinks it was about 1919; ceased trapping because of the scarcity of the animals and the scarcity of the water; as game warden he kept a record for 1918 and 1919 of animals trapped; total number of muskrats trapped was 8,477; mink 131; skunks 15; weasels 8; coyotes 3; this included all trapping reported to him in Malheur Lake at that time. They caught the animals with steel traps which were set on the runways in the part of the lake where there were tule bunches; all the islands where there were tules there were muskrats in the lake; did his hunting in the fall and spring; dried the skins, packed them in a frame or crate, pressed them and kept them there until they got through, and then baled them for market; took them to market on a team into the Town of Crane. Some of the skins obtained from trapping he took to a railroad point to ship; drove to Parma, Idaho, from the lakes and shipped from there; other trappers shipped by express from Lawen (Vol. II, 720–724).

Hamilton, Lester Marion, 50 years of age, resid-

ing about three miles east of Burns, Oregon; lived in Harney County since 1893 (Vol. I, 35).

Always some fish in the lake but they were small and not big enough to eat. From 1908, almost every fall he went hunting in Malheur Lake for ducks and geese; plenty of birds and muskrats (Vol. II, 715–716).

Heinz, John W., 54 years of age; lived in Harney County since 1891, in the neighborhood of Malheur Lake (Vol. I, 37).

In running of his traps did most of the work in lower part of Malheur Lake; other trappers in there (A. R. 997–998).

The length of season depended upon when it froze up; would start along about the first of November and trap until it froze up, which would be from the 20th to the 25th of November. After 1918 Malheur Lake dried up (Vol. II, 957).

Jewett, Stanley G., 46 years of age; connected with the Bureau of Biological Survey, Department of Agriculture (Vol. I, 43).

Made his first trip to Malheur Lake in 1912 to study and list birds and mammals found there at that time. Certain species of birds frequented Harney Lake in great numbers at that time; saw no fish. Malheur Lake in 1912 produced a large revenue through muskrat and other pelts; during winter of 1913 and 1914 he saw a report from two trappers to the effect that they had taken 4,400 muskrats that year (Vol. II, 957–960).

In General

Baker, James Thomas, 65 years of age; lives northeast of Burns, Oregon; first came to Harney

Valley in 1878; stayed there until 1880; returned again in 1885 and stayed until the spring of 1890 (Vol. I, 12).

Never did any trapping in Malheur Lake; thinks he saw trappers there in the winter-time (Vol. II, 715).

Biggs, John W., 61 years of age, residing near Burns, Oregon; lawyer (Vol. I, 13).

Recalled three different times going duck hunting in a boat (Vol. II, 969).

Culp, Lloyd B., 65 years of age, residing at Crane, Oregon (Vol. I, 25).

Hunted around Malheur Lake in a boat (Vol. II, 983).

Donegan, James J., 59 years of age; has lived in Harney County since 1889 and continuously since 1893; land and tax agent (Vol. I, 28).

According to his general knowledge there were muskrats caught in the Malheur Lake country but did not know from his own experience or observation (Vol. II, 719).

Dunn, Thomas T., 50 years of age; has lived in Harney County since 1884 or 1888; between 1893 and 1896 lived on the lake (Vol. I, 29).

Used a boat in Malheur Lake to hunt duck eggs (Vol. II, 983).

Darsey, Mrs. Ollie, came to Harney Valley in October 1880 at the age of six (Vol. I, 27).

Husband had a couple of boats; went to Malheur Lake about twice a year hunting; hunting was around the tules in the lake (Vol. II, 984–985).

Darsey, John G., 63 years of age, residing at Burns, Oregon; has lived in Harney County since 1899; never had a place on Malheur Lake but had

been down there from time to time for the purpose of hunting (Vol. I, 27).

Been down to Malheur Lake from time to time hunting, mostly; was there from 1902 to 1908; thinks every spring and fall he hunted on the lake; best duck hunting was around the tules (Vol. II, 991-992).

Elliott, Cortis E., 53 years of age, residing at Diamond, Oregon; in 1890 resided at the Narrows (Vol. I, 30).

Shot duck in the west half of Malheur Lake in what was called the "fly-ways", which were mostly on the ridges out in the lake (Vol. II, 716).

Farrier, Jesse, 48 years of age; been living in Harney County since 1900 (Vol. I, 30–31).

Trapped on Malheur Lake three winters (Vol. II, 720).

Hanley, William, residing near Burns, Oregon; member of State Highway Commission; first came to Harney Valley in 1879 (Vol. I, 35).

Only a sample left of the birds that were there when he first came into the country, both as to quantity and kind; was always a vast quantity of muskrats which bred in Malheur Lake until the lake dried up; only one or two trappers in the country; there was a big fur business there; in the spring and fall there was a large amount of ducks and geese (Vol. II, 717–719).

Marshall, Alfred, 60 years of age, residing at Voltage, Oregon, south of Malheur Lake; came to Harney County in 1884 (Vol. I, 46).

Did not trap muskrats in the western part of Malheur Lake; trapped in where he lived and east along Cole Island (Vol. II, 720).

(Relative to hunting and trapping reference has been made to Malheur Lake only as that seems to be about the only lake on which any hunting or trapping was done, according to the testimony of witnesses.)